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THE SPACE GAMER

THE MAGAZINE OF ADVENTURE GAMING

MINIATURES ISSUE

PAINTING TECHNIQUES

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ARTIFACT EXPANSION AND DESIGNER'S NOTES

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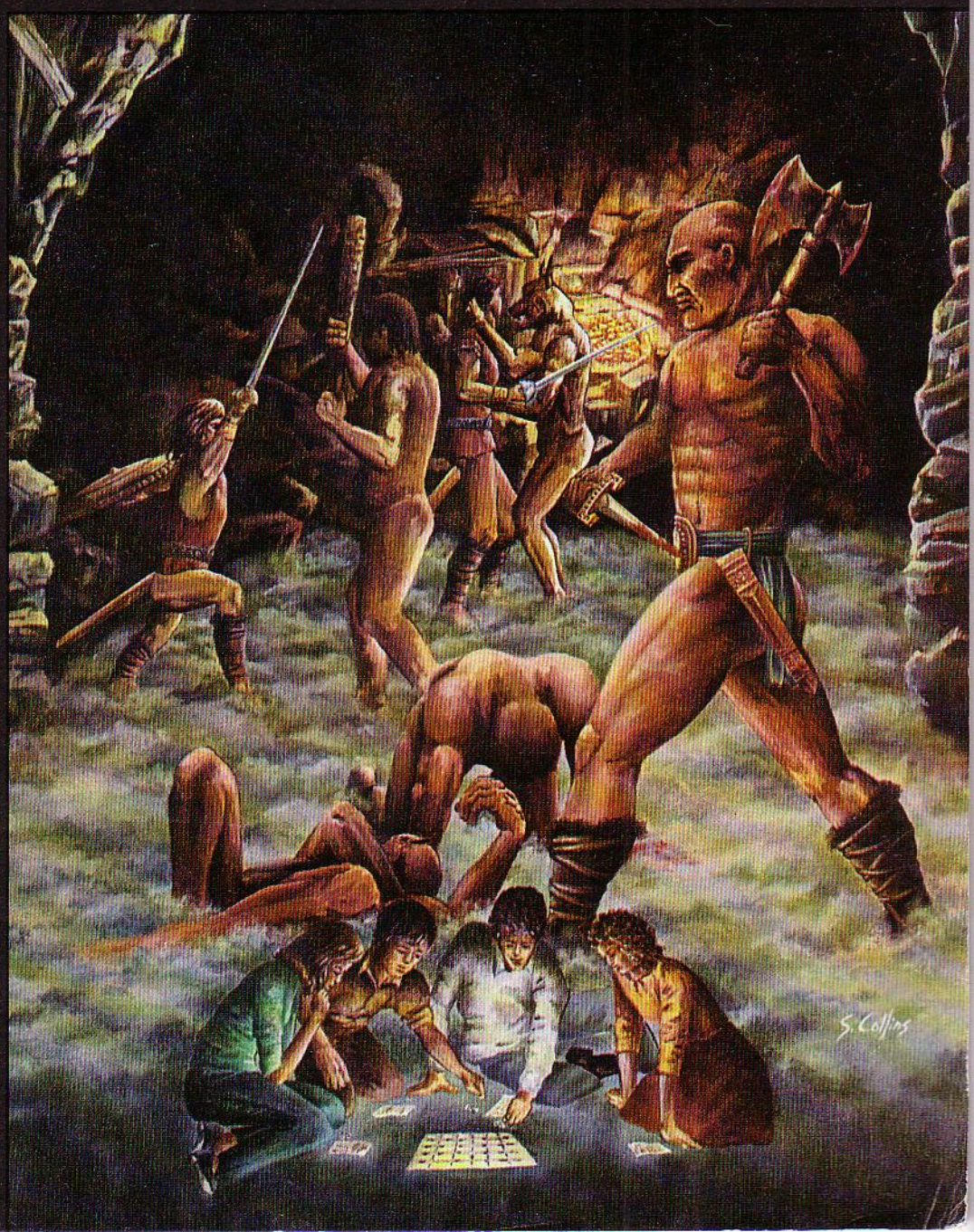

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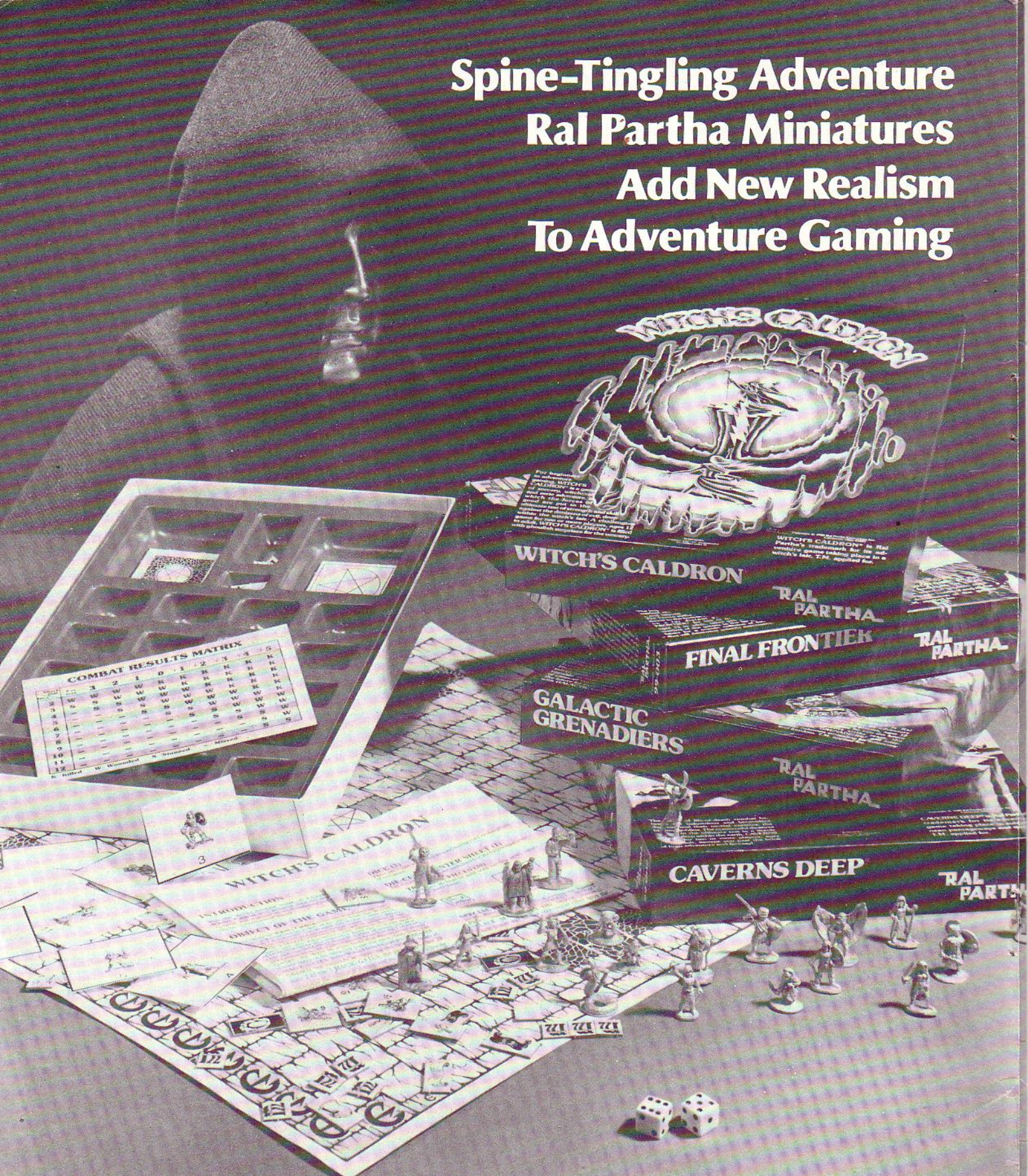

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THE SPACE GAMER

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IN THIS ISSUE

This time we're covering miniatures. This issue includes the miniatures company survey, an article on advanced painting techniques, Denis Loubet's article on his Cardboard Heroes work, and a featured review of the "Lord of the Rings" line. We've also got capsule reviews of several miniatures lines and game rules.

One thing that didn't make it this time was the Martian Metals company report. Mail from the Red Planet is a little slow this time of the year. (Our year? Their year? Don't ask.) Look for it in a later issue.

Rounding out the magazine is a really excellent piece of fiction by Timothy Zahn. The computer game techniques he describes will probably be commonplace in ten years – and they make good reading right now.

–Steve Jackson

THE SPACE GAMER

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Where We're Going

There's this about game publishing: it's not boring.

In the month since I wrote my last column, any number of interesting things have happened. I've encountered any number of problems and delays that I would have laughed off as impossibilities – until they happened!

In the end, of course, the good guys won. Everything finally came back from the printers, and it looked great. Even the bags finally showed up.

(Ah, yes. The bags. We ordered the zip-lock bags far in advance. About three weeks ago, they came. Too small, by a quarter-inch! A quick call to the bag company produced apologies . . . but it was quite a while before the proper-sized replacements finally came in.)

Once all the pieces were here, it was just a question of assembly and mailing. In the final analysis, we missed our planned release date by about two weeks. Not bad, for this industry – but not so great, either. Next time, there's got to be more "fudge factor" in there. I don't like setting a deadline unless I intend to make it.

But we're all very pleased with the games, and the Cardboard Heroes look beautiful. (Denis was floating around two feet in the air when he saw the first ones. Well, he deserves it.)

I'm not about to run through the whole story of the things we've been through in the last few weeks. But for those who are thinking about publishing your own games, here's a hint of what to expect:

Game Publishing Screw-Up Table

(Roll one D10 for each component of each game. Make additional rolls when instructed.)

1 - Printers bid on job they can't really do. Lose one week.
2 - Printers can't find right stock to print on. Lose 4 days.
3 - Printers forget to deliver proof. Lose 2 days.
4 - Printers don't make changes marked on proof. Lose 2 days.
5 - Printers deliver 10,000 copies of game map with faulty registration. Tear hair out by roots; lose 4 days.
6 - Printers take St. Swithin's Day off. Lose 1 day.
7 - Delivery truck gets lost. Lose 2 days and pick the job up yourself.
8 - Roll once more for one of the above problems, but add two days to the delay. The printers didn't phone you to tell you about it.
9 - Cringe and roll twice more.
10 - Scream and roll three more times.

* * *

Back to the magazine. We've been getting a steady flow of material, and a lot of it is really good. But we're short on variants and strategy articles for specific games. How about it? If you think you know a better way to play your favorite game . . . write an article for us!

TSG could also use a few more contributing editors. These are the people who write articles on a regular basis, and comment on the articles that other writers send us. Basically, the requirements for contributing editors are:

1. Furnish us with something publishable (an article, or a whole batch of capsules) every month – no excuses.

2. Mail us a redraft of any of your submissions seven days or less after you get it back from us. (This may not be necessary in all cases; if there's really no rush, we'll let you know.)

3. When you get a game for review from us, or elsewhere), send us the review within two weeks. This assumes that the game is within your competence as a reviewer; if it's not, we'll assign it to someone else. If we supply the game for review; we'll expect to get it back; we keep an extensive game library here so we can check out variants and research Game Master questions.

4. Don't get discouraged, even if an article you worked hard on doesn't see print immediately – or ever.

If this sounds hard, it is. We don't put a name on the masthead as a personal favor. If we list someone as a contributing editor, he's earned the title.

Contributing editors are also paid at our regular rate for everything of theirs that we use.

If this interests you, get in touch. The more good CEs we have, the bigger variety of material we can offer. We can use a few more specialists, and a couple of good generalists.

–Steve Jackson

ERRATA

A sample copy of *Diplomacy World* is $1.50, not $1.25, as reported.

Next Issue

Solitaire rules for Ogre, Expanded Psionics for Traveller, TFG's The War of the Worlds reviewed, our 1981 game survey questionnaire, notes for novice DMs by Lewis Pulsipher, the winner of the character-I-wouldn't-let-in-myuniverse contest, and heaps of capsule reviews.

GAME MASTER

Concerning the game *Ogre*:

1. Can an armor unit ram another armor unit?
2. Can an armor unit overrun an infantry unit?
3. Can an armor unit ram a CP?
4. If an Ogre rams another Ogre which has no remaining tread units but is still armed, what, if any, damage occurs?

Jerry A. Emery

P.S. It might be helpful if your readers were told what address you would prefer to have them send their questions to and how long they might be expected to wait before they see whether or not their questions have been chosen for answering. Keep up the good work. I think your magazine is the greatest thing for gamers since hexagonal graph paper.

Thanks for the kind words. To answer your last question first: Questions should be sent to TSG, Box 18805, Austin, TX 78760. If you don't see your question answered within four months of the time you send it, it probably won't be answered. We keep "marginal" ones around that long, just in case nothing really pressing comes in.

Now, for your game questions: (1) In **Ogre**, *armor units cannot ram other units. Likewise, (2) armor units cannot overrun infantry (as a matter of fact, nothing can "overrun" anything. And (3) Armor units cannot ram a CP. (4) If the rammed Ogre has no tread units remaining, nothing happens. NOTE that in G.E.V., which is more complicated, any mobile unit may attempt to "overrun" any enemy unit. This is not actually a ram – just an attempt to get very close and attack.*

–SJ

In the third book of *DragonQuest*, p. 62, they list experience point costs for rank 0 for weapons. Does this mean that you must make rank 0 to use a weapon, or is it just extra E.P. that you must spend on your way up in the ranks?

Secondly, in Yaquinto's *Swashbuckler*, one may win in the ship game by bringing the treasure chest onto your own ship. Since the only way to get from ship to ship is by swinging, and the rules state "Units carrying a Treasure Chest may not Climb, Jump, or Swing," how is this to be accomplished?

Michael R. Edwards

SPI's David James Ritchie replies to the first question:

"In order to progress with a weapon, a character must first achieve Rank '0' with that weapon. Having achieved Rank 0, the character may then achieve Rank 1, etc. The key element here is the fact that you can only progress one Rank at a time with a weapon. Thus, both the EP cost and the **time** *required to progress to Rank 1 are affected by adding the separate step of Rank '0' prior to the achievement of a numbered Rank 1-10. There is no benefit to achieving Rank 0 with a weapon. The second printing of* **DragonQuest** *uses other language to clarify this point."*

We did not get a reply from Yaquinto about the **Swashbuckler** *question. You're right, though – the rules conflict. The simplest solution would be to say that a character with a treasure chest CAN "swing" between ships. He may not climb a mast, but CAN "climb" to a higher deck from a lower one.*

–SJ

W.G. Armintrout, designer of *Hot Spot*, writes: ". . . thank you for your review of *Hot Spot*. . . . As for Ziegler infantry taking control of a Technocrat attack platform, it depends on how you conceptualize the situation (ah! the standard cop-out for every sci-fi game!). The Zieglers cannot take control of an attack platform (not without engineering expertise), so the best they can hope for is to neutralize the AP. Which leads to the question – how much do the Ziegler infantry know about attack platforms? Can they find its control center easily? How long will it take them to enter it when found? But, not wishing to add complicated new rules, the simplest thing is to say that an attack platform, if occupied by Ziegler units ONLY, is automatically neutralized. (Which assumes the control center is immediately obvious and unprotected.) This would apply at any time, during any phase of the game.

This letter is for your column "Game Master" in your excellent magazine. All of these questions have been sent to Metagaming without any response, and seeing that you didn't seem too busy in this area, I thought I'd be nice and give you some work (no, no thanks necessary!).

First game: *One World*

The tower of balance in hex 1811 has a problem. Assuming the hex to be grasslands (as the terrain chart suggests) means "non-stones" can't leave that hex, and after four reinforcements, the universe explodes. Is hex 1811 supposed to be pylons with the tower towering up near the top? Or is hex 1912 supposed to be grasslands for an escape route?

Second game: *Annihilator*

When human units set a demolition charge, what happens to the units in the hex where the charge is set? I assume they receive a 100:1 odds attack and are (pardon the pun) annihilated. Don't tell me that no such case exists, because I have lost numerous MAS units to this disaster.

With no charges left to play with, the human player cannot destroy the brain core. I had this happen a time or two, and its aggravating. I hope that I don't have to save charges, because I like to blast my way to the brain core. I would think that an attack from an adjacent hex would suffice in this case.

Third game: *Godsfire*

Neutrality is cheating on the system. After my nearly-successful attack on the neutral, but forced withdrawal, I come back next turn to finish off – only to find full replacements for their losses! Shouldn't there be a system of slow build-up?

Can neutrals be subverted?

When a Cluster Buster rule is being used, and some lucky sod gets a region into the I-1 or I-2 status, and the government happens to be an Extremist, and enough GB are lying around, and the aforementioned player gets to build four or six SQDs, how can this be attempted without asking for an Ultra-Destructive Godsfire?

Rick Miller

We didn't get a reply either. Suggestions follow.

On **Oneworld**: *Both of your suggestions work. Making 1912 grassland seems to add more interest to the game.*

On **Annihilator**: *Reread rule 8.1 in the errata sheet enclosed with the game. Human units may put their charges in hexes adjacent to their own. Even if they put the charge in their own hex, they have a turn in which to leave before it explodes. Granted – any human unit in the hex when the charge explodes SHOULD be removed. However, there should rarely if ever be a reason for the human player to leave his units there to die.*

As to the brain core: It appears that the intent of the rules it to FORCE you to save enough charges to destroy the brain core. I wouldn't allow an attack to damage the core at all unless a demolition charge is used.

On **Godsfire**: *A slow build-up system for neutrals would definitely make sense – say, one unit replaced each interphase (two if the planet has two industrial areas), with SQDs being replaced first, the AG and PDF. Subversion of neutrals could be allowed, with another player taking over the neutral and, in effect, "playing" it himself. It would certainly be slow, though.*

As to the cluster-buster rule: Don't count the number of units in a cell during the interphase – wait until after movement! The planetary rulers would hardly construct all those ships at the same moment, and then activate them in the same area.

–SJ

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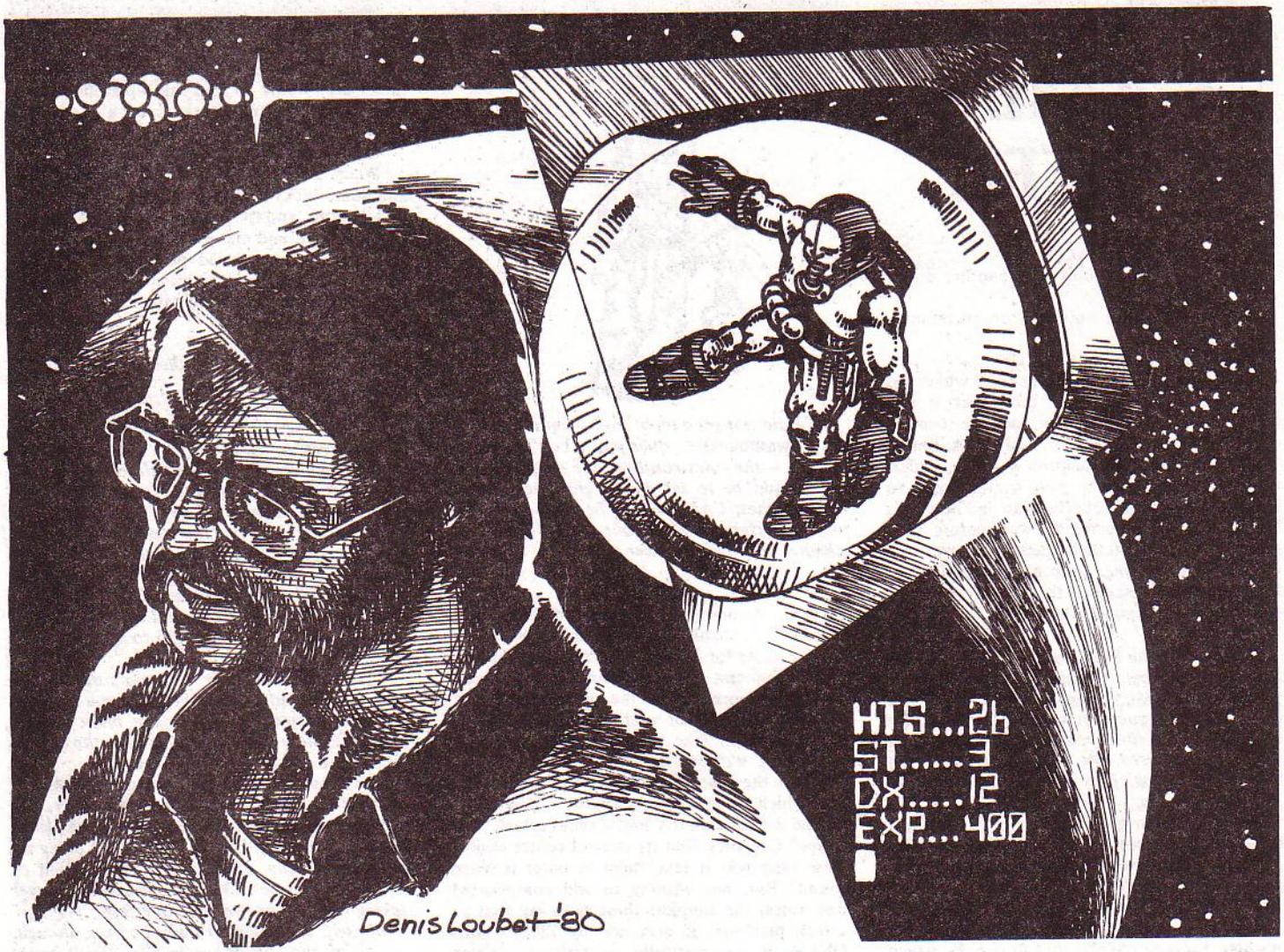


the challenge

by Timothy Zahn

The clock-radio went off at six-fifteen, as usual, and for a moment Elliot Burke hovered in that disoriented state between sleep and full consciousness. Then his brain cleared and he smiled at the ceiling.

This was the big day!

Leaning over, he typed *N153* on his keyboard and watched as the front page of the New York *Daily International* appeared in the center of the one-meter-square screen. More from a vague sense of duty than any real interest he scanned the headlines. Nothing much was new. The Antarctic Core Tap was bogged down with cost overruns, the Skyhome space colony was still processing applications for the third group of one hundred colonists, North Iran was rattling its sabers at both Russia and South Iran, and the President had announced he would run for re-election.

Impatiently, Elliot flipped the pages until he reached "Sports and Games;" and in the middle of the fifth page he found it:

> Fans of the *Deathworld* series on channel G29 will want to be tuned in tonight to watch as the immovable object meets the irresistable force. The Orion Nomad, the highest-ranked *Deathworld* gamer still in active competition, will take on Doomheim IV, Lon Thorndyke's most recent world. In its four-month existence, Doomheim IV has not yet been conquered, though over fifty top-ranked gamers have tried it. The Nomad will be landing at 7:30 EST this evening to try his hand. Don't miss it!

Elliot smiled. He was the Orion Nomad.

Moving with a grace that seemed incongruous in so large a craft, the Sirrachat ship flew at mountaintop-height over the lunar surface, seeking the source of the subspace emanations which had attracted his attention. Nestled in the shadows at the base of a short ridge, he found another starcraft, one even larger than the Sirrachat's but of a totally different design. It was showing no lights.

The Sirrachat settled to the surface a few hundred meters away; and as he did so a laser beam flashed out from the other ship. Not an attack, but an invitation to communicate. In a moment they had contact.

"I am called Sirrachat."

"I greet you, Sirrachat," the other replied. "I am Drymnu."

"I greet you." The Sirrachat had heard of the Drymnu – a fairly young hive race from this region of space, in only his first millenium of star travel. "Are you in need?"

The Drymnu seemed to hesitate. "First I must ask, are you ***one****?"*

The collective intelligence that was the Sirrachat smiled tolerantly. "Certainly. All starfaring races are as you and I. Did you not know?"

"I knew that that is said, but I fear it may not be so for long. I am in great need of your counsel, Sirrachat."

"Speak on."

The Drymnu paused, as if collecting his thoughts. "It is said by all those we have encountered that fragmented races cannot attain the stars. The argument is that the self-destructive competition common to these races will destroy them before they reach the necessary technological level. But I have now been studying the fragmented race on the planet below for twenty-nine of its years, and I see no evidence of imminent destruction. Indeed, it is already taking its first steps into space. Five permanent bases exist on this satellite, an orbiting space colony has been built, and expeditions to the second and fourth planets have been carried out."

"An interesting situation," the Sirrachat agreed. "Most fragmented races never get that far. However, I doubt that there is any cause for alarm."

"But it is a violent race, each member putting his own desires above all else. If it should escape its system it would bring ruin on us all –"

"Please – before you become overly worried," the Sirrachat interrupted. "I don't doubt the race's violent nature, but you are overlooking several basic forces which are likely to exist here. May I have access to your stored information on this race?"

"Certainly," the Drymnu said, already sounding more at ease.

Elliot strode through the door of his apartment and tossed his coat at the hook, turning toward the kitchen before it hit and slid to the floor. Another boring and frustrating workday, topped off by his bi-weekly run-in with Mr. Franklin over the possibilities of Elliot's advancement to Design and Development. Franklin's argument – that with only a B.S. in electrical engineering Elliot couldn't be promoted to D and D – made an unfortunate kind of sense, considering the glut of Ph.D.'s on the market. On the other hand, Elliot *knew* he could do the job, and spending his days checking other people's schematics for errors was driving him crazy.

For tonight, though, Franklin could go jump. Elliot's troubles vanished like leaves in a hurricane in the face of his excitement. Tonight he had a chance to do something no one else had ever done: to beat Doomheim IV.

By seven o'clock he was ready. Seating himself before the TV screen, the keyboard before him on an ancient typing table, he called up the proper channel. The *Deathworld* logo appeared on the screen. He typed his "game name" – Orion Nomad – and his secret code word. Then he named his destination: Doomheim IV. Somewhere in North America, the computers that handled the gaming functions of the vast Bell Info/Comm Net pulled the Orion Nomad's personal data file from storage and prepared the program that was Doomheim IV. The software that would handle the simulation of Elliot's journey was among the most sophisticated in the free world, and with good reason: the revenues from the multitude of games was the major financial base for the whole Net.

Elliot's screen began filling up with words – the basic information and rules for Doomheim. The planet, he was informed, had an Earth-like atmosphere and a temperate climate. Gravity was one point two gee and a wide variety of flora and fauna were present. A shuttle-bubble would land him at any point ten kilometers or more from the lifter that was his goal. None of this was new – Elliot had read it several times as he watched other gamers try their luck on Doomheim – so he skimmed it quickly and then moved on to choose his equipment. As he did so, a line of words began to appear at the bottom of his screen:

"Good luck, Orion Nomad. I'll be rooting for you. –The Adrian"

Elliot grinned. The Adrian was one of his most loyal fans; only a so-so gamer himself, but an avid spectator of most of the SF games. Elliot had had several long conversations with him via the Net and had been astonished by the lists of players, scores, and standings he could reel off. It was apparently a family tradition; the Adrian's grandfather had done the same thing with football and baseball statistics. Or so he said.

But Elliot had no time for chitchat now. Turning his attention back to the equipment list, he began to type out his selections: medium thickness body armor with respirator; extra-heavy leatherite-steelmesh boots and gauntlets; two thermite torches; one laser armgun – more powerful than a pistol but still a one-handed weapon; three knives – one hunting, two throwing; fifteen grenades – seven blast, six concussion, two fragmentation; binoculars, compass; radio direction finder; and finally, a balloon lifter pack. The latter was a simple backpack with inflatable balloons and two small tanks of compressed helium, plus steering jets. It was lighter and less bulky than a full jet pack and, while not nearly as easy to maneuver with, it also did not attract predators as often. Its main disadvantage was that it was slow, taking up to thirty seconds to inflate completely.

Thoughtfully, Elliot scanned the list. A little light, perhaps. On the other hand, the Orion Nomad was quite fast and agile, and Elliot had often been able to outrun the creatures he would otherwise have had to fight. And several heavily armed, solidly armored adventurers had already gone to their deaths on Doomheim IV. Elliot would try it this way.

And it was time to go. From here on it was just the Orion Nomad against Doomheim – with maybe a thousand spectators electronically watching over his shoulder. Well, they wouldn't be disappointed; Elliot would make sure of that. Taking a last deep breath, he pressed the "start" key.

The TV screen split into nine sections. Five of them were full-color views of Doomheim's lower atmosphere as the Orion Nomad, descending in the shuttle-bubble, could see it; front view, left, right, above, and beneath, arranged in a convenient plus-shaped pattern. The four corner sections held data that he would normally have on a real planet, but which the TV's sight and sound alone couldn't provide.

As he had expected, nothing he could see was doing him any good. Below his bubble, the landscape was obscured by low-lying stratus clouds, a trick that Thorndyke almost always used on the worlds he created. Elliot took just a moment to confirm there were no breaks in the clouds and then checked his compass and direction finder, displayed on one of the screen sections. The needles were nearly in line; Elliot was coming down almost due south of the lifter. He changed the bubble's course slightly –

LAND BUBBLE R=10 KM, 180 DEG

– so that he would be exactly south of his goal. Now, if anything happened to his direction finder, he could use the compass to find his way.

The bubble passed through the clouds, and for a brief minute Elliot could see the surface of Doomheim. Between himself and the lifter he could see bluish plains, at least one range of rocky-looking hills, and a patch of darker blue that he tentatively labeled a lake. And then he

was down, a few hundred meters south of the hills, in a vast plain.

He stepped out –

LEAVE BUBBLE, STOP/TURN

–and looked around. The "grass" of this prairie looked much like ankle-high cattails with broad blue leaves extending horizontally. In many places the ground was completely obscured; he'd have to watch for concealed snakes and insects. There was no time to investigate the flora now, however – from his left two animals were loping toward him.

Elliot turned –

TURN LEFT, RH=ARMGUN, AIM AT L ANIMAL

–and raised his laser. He was well-prepared for this moment; one or more of these small tyrannosaurs had attacked every other landing he'd watched and he had expected them. They could be killed, he knew, by a one-second head shot . . . but there might be an easier way. The fact that they *always* showed up so soon implied they had seen him coming. Maybe it was the bubble that attracted them.

BUBBLE GO SW, HORIZ, 2 KM, .1 VEL/RETURN TO SHIP

The bubble floated lazily away from him – and sure enough, the tyrannosaurs veered to follow. Elliot grinned. A minor victory, to be sure, but he had just saved two seconds' worth of laser fire, and little things like that often made the difference. Waiting until the animals were too distant to notice him, Elliot checked his bearings and began to walk.

He'd taken maybe ten steps when he heard a faint whistle. He froze, searching around him for the source of the noise. Nothing was visible, so he risked a slow turn . . . and spotted it. Or, rather, them.

In the southern sky, a mass of black specks had appeared. They seemed to be closing, fast.

Elliot looked around him, but there wasn't a scrap of cover anywhere within reach. The hills were still too far away, and nothing higher than the cattails seemed to be growing on the plain. The birds – or whatever – were close enough now that he could estimate their numbers. There were at least two hundred of them, far too many to pick off with his laser. And he'd seen what these birds could do to light armor like this.

He's have to move fast. Running to a bare spot of ground, he lay down –

LIE DOWN ON L SIDE, TUCK LEGS CLOSE TO BODY, LH=TORCH, RH=TORCH

– and drew in his legs, sheathing his laser and taking a thermite torch in each hand. Waiting until the birds were nearly on him, he –

IGNITE TORCHES, LH=SWEEP HORIZ ABOVE LEGS, RH=SWEEP HORIZ ABOVE TORSO AND HEAD

– lit the torches and made them into a fast-moving shield above him. On the TV screen, words began appearing, telling him whenever a bird got through and how much damage it did to his armor. Most of the birds seemed to be blinded or burned before they could hurt him, however. He kept at it grimly, even though the screen warned him that he himself was suffering light burns from the torches' heat.

As quickly as it had started, the attack was over, the surviving birds resuming their northward course. Elliot had sustained light damage to his armor, especially on the arms, and had first-degree burns on arms and chest. Both would be duly noted by the computer, and Elliot's defense and attack capabilities appropriately adjusted. All in all, though, it had been a very successful encounter.

Standing up, Elliot extinguished the remains of the torches and stowed them away, again taking up his laser. Looking around carefully, he set off again toward the hills.

The data flow finally ceased, and the Sirrachat paused to consider it, impressed in spite of himself. The Drymnu had amassed a truly fantastic store of information on Earth and its fragmented race, not only monitoring the various broadcast media but also managing to tap into the more private cable systems. And all this without dropping even a hit of its own existence, as far as the Sirrachat could tell. "You have done well," he told the other.

The Drymnu didn't even bother trying to hide his pleasure at the compliment. "Thank you," he said. Then, more seriously, "But now what of this race and its threat?"

"You have already mentioned the key to their behavior," the Sirrachat began slowly, part of his mind still busy searching the newly-acquired information. "Namely, ***competition****. Fragmented races do not act together for their mutual good; indeed, they often cannot do so, any more than two animals can when there is one bit of food and both want it. Now, survival is often a matter of competition, and any race not possessing the desire to challenge and win soon vanishes from the universe. Obviously, both you and I possess such a desire. But – and here is the point –* ***our*** *battles were with our own worlds; their creatures and environments. Once we had mastered these, our inbred competitive spirits pushed us into space and, ultimately, to the stars. I say 'pushed' very deliberately, because space was the only major goal left to us, and a race without challenge soon withers away. But fragmented races are never without challenge, for they can always fight among their own members, something that is impossible for us to do. You see this happening below us at this very moment: competition among single members for their own gains, competition among huge groups of them for resources and honor, and everything in between. Is it any wonder the cultures of fragmented races are unstable?"*

The Drymnu pondered. "I understand what you say. But there is evidence of cooperation as well, at least to some extent. Those large groups of members have survived for years without collapsing back to single-member size. Their orbiting colony is fairly new, but its group seems even more cooperative, at least so far. And much of the race's technological progress is stimulated by its internal conflict, as ours was by our desire to reach outward."

"That technology is also designed for the internal competition, however," the Sirrachat pointed out. "Eventually it will reach a level sufficient to destroy the race; and at that point it is only a matter of waiting for the triggering spark."

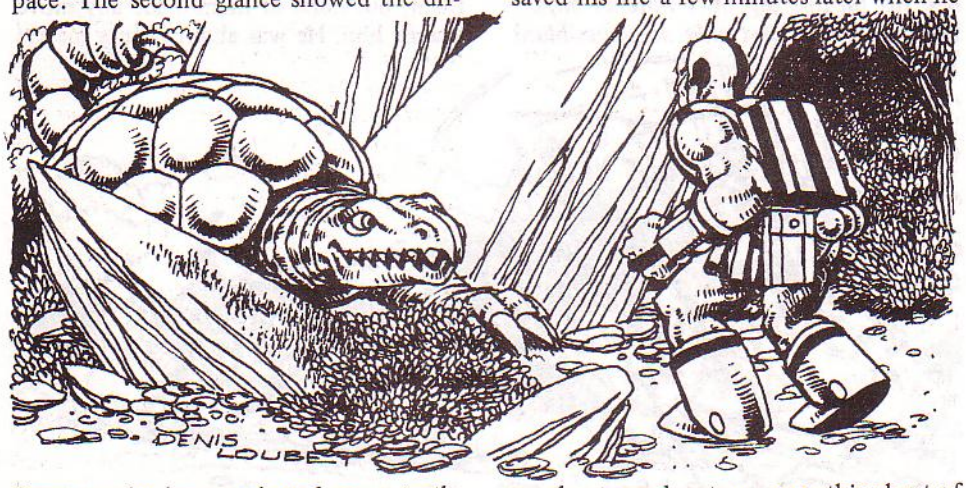
"I do not doubt they will ultimately destroy themselves. But . . . is it not possible that the race may discover the star-drive before that happens and send some of its members outward? If even a handful survive, it could be a serious matter."

"It will not happen," the Sirrachat said emphatically. "I will explain in a moment . . ." He paused, still searching the Earth data. The idea he was about to present to the Drymnu would undoubtedly strike the latter as so bizarre that it would be best to have an example ready . . . and seconds later, he found one. "Please join me in observing this event, which is even now occuring," he invited the Drymnu, indicating the proper channel, "and I will explain the concept of ***games.****"*

The hills were not particularly high, but they were craggy, and Elliot had been forced to settle for a slow walk in order to avoid repeated falls. He was less worried about his own safety than that of his equipment, especially since his right arm – which held the laser – could not be used to help break a dangerous fall. Still, he wished he could hurry. Several brands of unfriendly creatures lived in these hills and he was hoping to get off the treacherous terrain before he ran into

one. That he hadn't already done so was merely an indication of Thorndyke's world-building skills. Inexperienced builders usually crowded their worlds with deadly animals and plants, only to discover that, all too often, they fell to attacking each other instead of the explorer. It was an effect that couldn't be postulated away; the *Deathworld* Game Committee required the ecology on every planet they accepted to be as sensible as the physics and chemistry. The best builders got around the problem by spacing out their predators so they wouldn't run into each other. It was small comfort to the explorers, of course.

Elliot was traversing a flat but rock-strewn section when a large creature came around a pile of boulders. At first glimpse it seemed to be a large turtle, complete with leathery head and neck, short legs, and a large, multi-faceted carapace. The second glance showed the differences; the long neck and razor teeth, the scorpion tail . . . and the surprising speed.



Elliot backed away as the creature came toward him, surprise freezing all but reflex responses. It was one step up from *deja vu*: he himself had *invented* this creature three years ago for one of his own deathworlds! It could not be coincidence; the shape of the carapace was too distinctive, too unique to Elliot's megatort. Consciously or otherwise, Thorndyke had clearly borrowed it.

The creature was still coming. Automatically, Elliot fired a burst from his laser – and then immediately cursed himself for wasting power. A megatort couldn't be killed easily by laser fire; its skin and shell were too tough. As a matter of fact, it couldn't be killed easily by *anything*, as near as Elliot could recall. Still backing off, he racked his brain. After all, he'd *created* the damn beast – he ought to know how to kill it.

The answer came, almost too late. Snatching a concussion grenade with his free hand –

LH=CONC GRENADE; ARM 2 SEC; THROW 5 DEG R, 0 DEG VERT, 4 MS

– he bounced it to just under the megatort's left side. With a deafening thunderclap it went off, rocking the creature onto its right side, where it balanced precariously, legs and tail thrashing furiously. Elliot didn't hang around to see what would happen next, but took off as fast as he safely could. The megatort would eventually right itself, and he had no intention of being in the neighborhood when it did so.

He had gone another two hundred meters when a six-legged wolverine-sized animal sprang at him from a camouflaged burrow. A single shot from the laser killed it, but not before it had chewed a hole in his left gauntlet down to the steel mesh. Elliot paid more attention to the ground after that, which probably saved his life a few minutes later when he nearly stepped onto a paper-thin sheet of rock that bridged a narrow and well-camouflaged chasm. Spotting it in time, he inflated his balloons and floated across, deflating them as soon as he was on the other side of the gorge. It was too bad, he reflected, that he couldn't simply float to his target. But trying would probably be fatal. He had seen at least two other flocks of birds since the group that had attacked him, and he didn't want to be off the ground if another group spotted him.

He emerged from the hills without further incident and found himself at the dark-blue area he had seen from the bubble. It was not, as he had supposed, a lake, but was a stretch of woods.

Elliot scowled, not liking it a bit. Forests were dangerous areas – lots of handy places for predators to lurk, and you could be attacked from any direction. But there was little he could do about it. The band of blue-leaved trees extended to the east and west as far as he could see, and it was too wide to risk flying over. Taking a deep breath, he typed in the proper commands, and the Orion Nomad went forward.

He wasn't a hundred meters into the woods when the first attack came, and it caught him flatfooted. Concentrating on the bushes and undergrowth around him, he didn't even notice the wide-meshed net hidden among the tree branches until it had fallen on him. The net, he noted in passing, seemed to be made of thick, dark-hued vines crudely fastened together. He had no time for further observation, though, for the woods around him had suddenly come alive with screaming creatures.

Elliot acted instinctively –

RH=ARMGUN; AIM THROUGH NET AT CLOSE ANIMAL; FIRE/ SAME/ SAME/ SAME/ SAME

– firing through the mesh. The creatures were no larger than chimpanzees, but they were armed with what looked like flint knives and knew how to use them. Several got within range before he could shoot them, and without his armor he would have been thoroughly skewered.

They lost eight of their number to his laser before they seemed to realize they were losing and drew back from him. He killed three more and the rest fled, leaving him alone. Elliot let out his breath in a sigh of relief, feeling a slight shock as he noticed the living room around him. It was sometimes easy to forget that he wasn't really on an alien world. There was no time to waste, though – the arboreal creatures could regroup and come back at any time, and there were bound to be other nasties nearby. With his left hand he pulled out the remaining stub of a thermite torch . . . and hesitated. Something about the net seemed disturbingly familiar. Shifting his gaze to the part of the TV screen that listed sensory data, he skimmed through it – and there it was:

The net is coated with a very sticky substance.

Thorndyke had done it again: Elliot had used this same trick years ago. The sticky coating, ideal for trapping the creatures' victims, also happened to be highly flammable. Elliot had just come within an ace of incinerating himself.

Replacing the torch, he drew his hunting knife. One cut later, though, he realized this wasn't going to work. The knife sliced the vine, all right, but the tarry coating slowed it down drastically. It might take him an hour to cut himself free, and until then he was a sitting duck. Starting on the second vine, he kept a sharp eye on the surrounding woods and tried to think.

What kind of escape mechanism had he set up when he invented this net? He hadn't consciously made one, of

course; he'd been the world-builder on that game, and getting *out* of the net had been everyone else's problem. But he must have had *some* ideas.

"Aha!" he yelled out loud, slapping the table that held his keyboard.

RH=HUNTING KNIFE, LH=HELIUM TANK; OPEN VALVE .2, SPRAY FOR 2 SEC ON KNIFE AND FRONT OF NET

It did the trick. The expanding jet of helium froze the targeted vines into brittle, non-sticky rods and protected the knife from any of the other vines it happened to touch. A little experimentation showed him that he could get away with just cooling the knife, and within five minutes he was free of the net. He'd emptied one helium tank in the process, but the other still held enough to inflate his balloons at least once more. A very fair trade, he decided.

Laser again in his right hand, and with one eye on the overhead branches, he continued on into the woods.

"I don't understand this at all," the Drymnu said, clearly bewildered. "Where is the world **Doomheim** *that this simulation refers to? Is this journey part of the racial history, or is it a plan for the future?"*

"It is neither," the Sirrachat answered, still watching Elliot's progress on the Drymnu's monitoring equipment. "This is what fragmented races call a **game**. *It's a stylized form of competition engaged in between two or more members of the race. There is nothing corresponding to games in our own cultures, just as other forms of intraracial competition are absent. Each game has an object or a goal and a set of rules which mimic, after a fashion, the laws of nature. In fact, the game is a sort of simplified universe, limited in both space and time, where the members engage in combat of a specified mode."*

"To what end? Why create a new universe when a real one already exists?"

"There are three reasons that I know of. First, it allows the members to engage in a **safe** *conflict, one which threatens the life and health of neither member. Recall that the race is caught between two conflicting goals: the goal of each member to gain for himself, even at the expense of others; and the goal of the race as a whole to survive. Games help to channel the members' competitive drives."*

"But that leaves less of this drive for the race to use for useful purposes," the Drymnu objected.

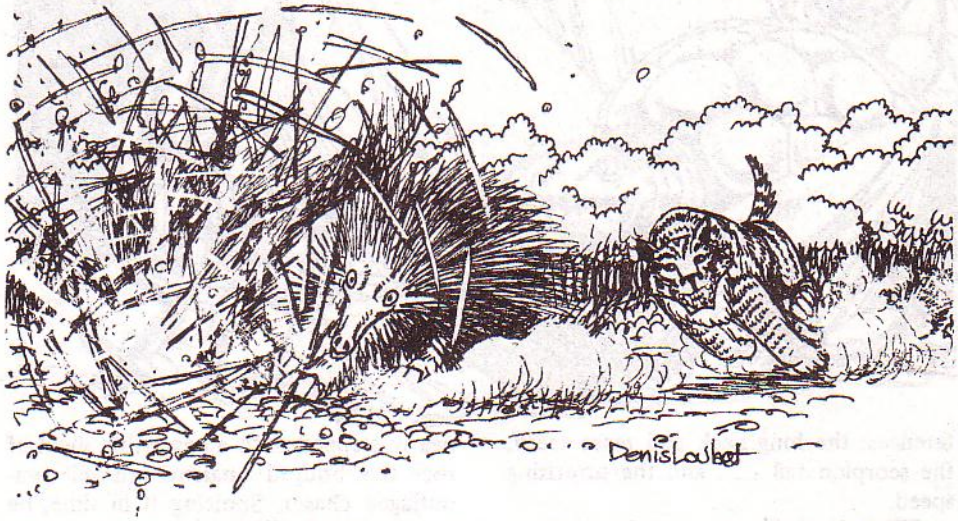
"You are beginning to understand," the Sirrachat said. "Its progress is thus much slower than it otherwise would be. The second reason is related to the first: games allow the members to achieve a goal of success in a very short time."

"Are fragmented races so impatient, then? The stars hold the promise of great successes to all who reach them. Even in this planetary system there are goals to be achieved."

"You are not thinking like a fragmented race," the Sirrachat reminded him gently. "Many of the goals you have in mind would take longer than a given member's lifetime to accomplish. Bear in mind that **each member** *feels the same desire for victory that we as complete races feel. You, I am sure, could feel only limited satisfaction in one of my victories, one which you yourself did not directly contribute to; in the same way, a fragmented race's victories do not wholly satisfy the needs of its members. Games help to fill this gap. And note an important side effect: not only do games blunt the race's drive, but they absorb a great deal of its scientific and technological growth. Consider the work that has gone into the game we are watching, the time and resources that would otherwise have been used for other purposes. The members who designed the equipment and those who are the actual players all have skills of imagination and intelligence which would be vital to the development of the stardrive."*

"I see." The Drymnu paused again. "You mentioned a third reason for games."

"Yes, I did."



Slightly surprised he was still alive, Elliot stepped out from under the last tree and stood once more on a vast plain. The forest had been grueling. No fewer than eight attacks had been launched at him, some of them back to back. He'd won all of them, but at high cost. His weaponry had been reduced to ten seconds' worth of laser fire and two concussion grenades, plus his hunting knife. His armor was damaged in several places, his left arm was injured and could only be moved at half speed, and he was limping from a piece of one of his own fragmentation grenades in his ankle. The Orion Nomad was in bad shape, and there was still at least a kilometer to go.

Ahead of him, dotting the plain, were thirty or so large humpbacked creatures, apparently grazing. With his binoculars, Elliot took a moment to study their small heads, flat vegetarian teeth, and defense-oriented porcupine-like quills. Clearly, they were not predators, and chances were they wouldn't attack unless he spooked them. Taking a deep breath, and one more look into the woods behind him, he limped carefully forward.

Several of the creatures paused in their meal to glare as he passed slowly among them, but none of them made any move against him. He was about twenty meters past the last one, and beginning to breathe again, when a group of six tigers broke from the woods toward him.

They were not exactly Earth-type tigers, of course; Elliot had given them that name after a run-in with three of the species in the forest, a battle he'd barely survived. With his injuries and shrinking power supply, he knew he'd never win another fight. And to make matters worse, the quilled animals were also apparently afraid of the tigers, for they had abandoned their grazing and were running from the predators . . . running straight at Elliot. It was a toss-up whether they would trample him to death before the tigers could get to him.

There was no time for conscious thought; Elliot's next move was one of pure reflex. Snatching a concussion grenade, he armed it and tossed it to land directly in front of the lead quillback. The creature went down, stunned or killed by the blast, and its startled companions

stopped abruptly, some even turning to run in the opposite direction. Seconds later, the tigers reached them.

And there was instant pandemonium. Elliot, completely forgotten in the clash, kept moving, making for the edge of the plain as fast as he could. The sounds of the battle were fading behind him as he topped a rise – and barely managed to stop in time. Just past the rise was a three-meter drop into a twenty-meter-wide gully running across his line of travel. A gully filled with literally millions of moving black spots.

Army ants, or their equivalent.

Elliot wiped a sudden layer of sweat off his forehead. For some reason forever lost in his past, masses of insects horrified him as even tigers couldn't do, and even seeing them on a TV screen was enough to make him feel shaky. But he couldn't stop now. Across a gray mud flat directly ahead of him, nestled among some stubby bushes and the ubiquitous cattail plants, was the squat egg-shape that was his lifter. Opening the stopcock of his remaining helium tank, he filled the balloons and floated to a height of a few centimeters. Taking a deep breath, he fired a short burst from his jets and drifted over the ants.

His progress was slow, due mainly to a mild headwind, and – largely to avoid looking at the ants – he found himself studying the gray ground ahead. The closer he got, the less it looked like a mud flat, and the more like quicksand. It was, at least, an easy theory to test. Taking his compass, he tossed it ahead of him into the middle of the flat area. It hit with a muffled *splat* and slowly sank from sight.

So Elliot would simply continue flying over it, instead of landing as he had originally planned. But even as he made that decision, a memory tugged at his mind. Normally, he would have ignored it . . . but this had already happened twice on Doomheim. He had best be ready.

He was past the ants now and at the edge of the quicksand. Pointing his laser downwards, he took his last concussion grenade in his left hand, set it for a five-second fuse, and waited.

A slight motion of the mire was his only warning, but he was ready; and even as the dripping tentacle snaked toward him he fired into it, simultaneously dropping the grenade. The tentacle writhed away, and he fired at three more that rose to meet him. And then the ground exploded, showering him with muck. Dropping limply as suddenly as they had emerged, the tentacles lay briefly on the quicksand before disappearing beneath its surface.

He reached solid ground moments later, deflating his balloons with a sigh of relief. Now all that remained was for him to walk the remaining fifty meters to the lifter, step into the open door, and press the "return" lever.

The *open* door? Elliot stopped, suddenly suspicious. There was no reason for it to be open . . . unless it held a final present from Doomheim.

There were no stones nearby that Elliot could throw that distance, but his direction finder was the right size and weight. He arched it squarely through the door – and a cloud of angry insects exploded from inside the lifter, buzzing to within ten meters of him in search of their attacker. Resisting the urge to run or shoot, Elliot stood stock-still and waited for them to return to their appropriated metal nest. He didn't know whether or not they were dangerous, but he rather expected they were and certainly didn't want to find out the hard way. The problem now was to find a way, with what was left of his equipment, to get rid of them.

By the time the last of the insects had gone back into the lifter he had a plan. Moving as quietly as possible, he picked an armload of the cattail plants and carried them as close as he dared to the lifter door. The TV screen informed him that the breeze had shifted and was now at his back, a stroke of luck. Removing his balloons, he emptied the remainder of the steering-jet fuel onto the pile of plants. Another armload of cattails went on top, followed by a layer of wet plants from the edge of the quicksand. Then he backed off, and, crossing his fingers, ignited the mass with his laser.

It was all he could have hoped for. The pile burst into flame, sending a thick column of dense white smoke directly into the lifter. The insects never had a chance. Minutes later, respirator firmly in place, Elliot stepped through the door, crunching dazed insects underfoot, and pressed the proper lever.

The game was over. Elliot Burke – the Orion Nomad – had defeated Doomheim IV.

"The third reason for games," the Sirrachat said, "is one which I fear I may never truly understand. Virtually all fragmented races that have been studied obtain a particular emotional satisfaction from games, a satisfaction not only far out of proportion to the actual victory involved, but possibly even unconnected to it. They generally refer to this quality as 'fun.' It is this fact, I believe, which is the most important factor in keeping fragmented races from the stars until they finally destroy themselves. Creating a stardrive is ***work****, and as long as the race allows its members an alternative source of activity which provides both competiton and fun, it will forever remain within its system."*

"How wasteful," the Drymnu murmured. "How very wasteful."

Elliot slumped in his chair, ignoring the congratulatory messages appearing on his screen. He had won; he had defeated Doomheim IV. He should be ecstatically happy. But he wasn't . . . and he knew why.

No less than three times tonight he'd run into ideas lifted directly from his own worlds. In a very real sense, he'd actually wound up *fighting himself.*

It was a possibility that had never once occured to him. He'd begun playing *Deathworld* six years ago, confident that he would always have the excitement of conquering new worlds, as well as the joy of creating them. With the ideas and resources of a million gamers to draw on, how could it be otherwise? But the rapid and widespread communication which the Net permitted had thrown him a curve. His own ideas had been picked up, bounced around by others, and then tossed back at him. There was no real way to stop it from happening – the more good ideas he came up with, the more he would find them staring back at him on someone else's world. Conceited though it sounded, he was apparently too good at this. Either he would have to quit building worlds or he would have to drop out of *Deathworld* completely. There was no joy in battling his own reflection.

Only . . . what would he do then?

He could take up a new game; start from scratch at *Fantasy* or *Star Empire.* But sooner or later he'd run into the same problem. So what was the use? There were other types of games, of course, but the solitaire video ones that his parents had grown up with would probably drive him stir-crazy, and the old spectator sports like football were definitely out. And that was pretty much it, unless he wanted something like chess or *Monopoly.*

The result was clear. His gaming days were over.

Congratulations were still appearing on the screen. With a sudden flash of anger Elliot cut them off, and for a minute he stared at and through the screen. He'd never realized before just how much the games meant to him, how much they made the rest of his life tolerable. It was as bad as losing a girlfriend. Maybe worse.

Slowly his fingers moved, typing for the list of public lectures/conversations

currently on the Net. Perhaps talking with someone would help take his mind off his loss, he decided, scanning the list. One of the lectures caught his eye: *Theory of Interstellar Travel; lecture 1.* Not what he'd had in mind, really, but . . . Shrugging, he punched in the proper code.

"The theory was established in the 90's," a voice boomed out at him. Grabbing for the volume control, Elliot hastily turned it down from its usual game position. As he did so, words began to appear on the screen: someone in the audience making a comment. "But it's never been completely verified," he wrote. "And it contradicts Einstein in several places."

"Granted," the speaker returned. "But it agrees on all the points that *have* been tested experimentally."

"Excuse me," Elliot typed in, "but I've just joined in. Could you tell me what theory you're referring to? Reply to CET-4335T."

Another question for the speaker flowed across the center of the screen; at the same time, words began to crawl along the bottom. Someone was responding privately to Elliot's question. "Hi," the message said. "We're discussing Bobdonovitch's theory about the possible extension of tunnel diode effects to interstellar travel. Have you heard of Bobdonovitch?"

"No, but I'm familiar with tunnel diodes."

"OK. Well, Dr. Stanley Raymond here thinks there are ways to confirm the theory on a microscopic, electronic level, where it diverges slightly from quantum mechanics and relativity."

"I see – I think," Elliot typed. "Thanks."

"Sure," the other replied and disconnected from Elliot's line.

Turning his attention back to the main discussion, Elliot listened to the last half of the speaker's answer to someone's question on actual hyperspace travel. ". . . basic hardware is still at least a decade or two away. Probably more like a century, given the disinterest of the scientific community."

He paused, and a new voice spoke up. "That's as good a lead-in, I think, as any for our next speaker. Proving that Bobdonovitch was right is, of course, the key to getting other scientists intersted in the whole idea of star travel. Dr. Hans Kruse, at Syracuse, will now discuss some possible ways to test the theory."

Elliot settled back comfortably in his chair as Dr. Kruse cleared his throat and began to speak.

"I see my fears were groundless. I have apparently wasted some time," said the Drymnu.

"Not wasted," the Sirrachat disagreed. "All knowledge is valuable. And it was an easy mistake to make. Fragmented races look so ***powerful****, sometimes."*

"Yes," the Drymnu agreed ruefully. "A shame that they waste their energy on the idle pursuit of fun."

"Their loss. But, ultimately, our protection."

"True."

Elliot worked late into the night, an electronics textbook propped up on his keyboard, a notepad balanced on his knees, and Bobdonovitch's paper displayed on his TV screen. Many of the concepts were new to him, but that was all right – it simply added to the challenge. He had the time it would take to learn the basics; the time and, thanks to the Net, the information. It its own way, this was a more exciting puzzle than any he'd met in *Deathworld* – and the possible rewards were infinitely greater. Elliot Burke might someday be hailed as the man who took humanity to the stars. Glancing out the window at the starlike lights of the city, he smiled.

This was going to be fun.

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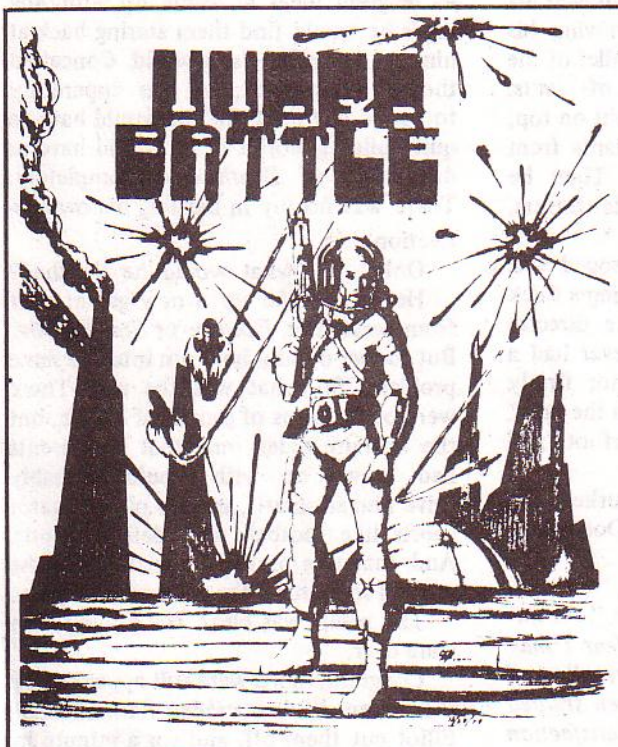
There are a lot of strange animals in this story. An experienced gamer will have little trouble finding equivalents for most of them in the *AD&D Monster Manual* and other sources. However, one creature we guarantee you haven't seen before is the megatort. It might game out like this:

TFT
ST = 40
DX = 13
MA = 12

Shell stops six hits, skin three. Bite does 2 dice damage, sting 1+1. A 4-hex creature.

D&D
Frequency: Rare
Number Appearing: 1-3
AC: -3(shell)/3(skin)
Move: 15"
Hit Dice: 8-10
% In Lair: 0%
Treasure: None
No. of Attacks: 2
Damage/Attack: 3d6(bite)/1d6(sting)
Special Attack: Poison
Special Defense: None
Magic Resistance: Standard
Intelligence: Non-
Alignment: Neutral
Size: L (average 12 feet)
Psionic Ability: None

Traveller
Killer
Weight: 800kg
Hits: 25/15
Armor: Battle
Weapons: teeth (3d6)
stinger (2d6+1)
A5F9S2



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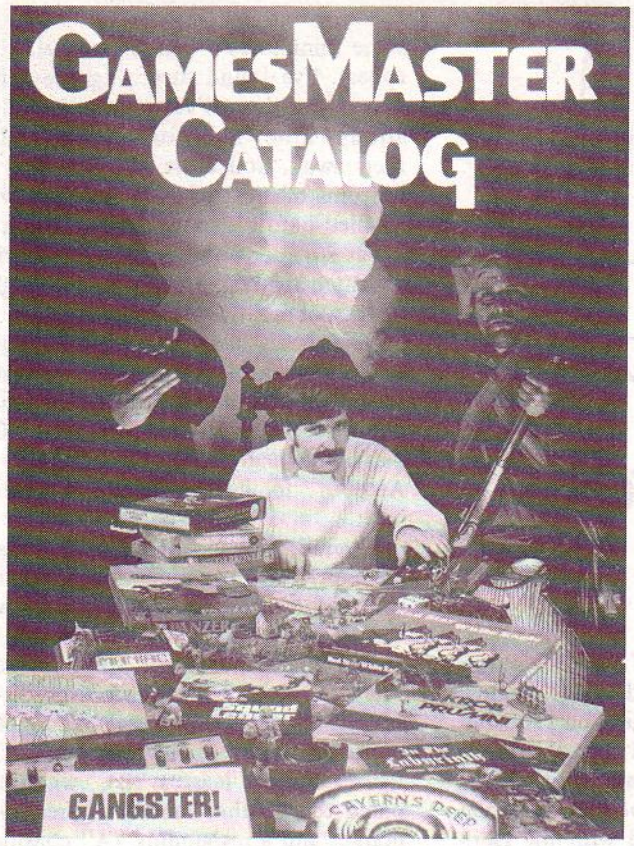

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FEATURED REVIEW:

Heritage's Lord of the Rings Figures

by William A. Barton

Face it: when you're talking fantasy, you're talking *Lord of the Rings*. Whether in fantasy literature, or in fantasy gaming, Tolkien's masterpiece stands as the ultimate model after which nearly every work since is fashioned – even if only subconsciously. It is only natural, then that fantasy gamers would wish to emulate the exploits of Middle Earth's great heroes and villains. Fantasy role players can create a Tolkien world of the imagination using any one of a number of FRP systems. Boardgamers have SPI's *War of the Ring*. But miniature gamers need more.

Heritage has thus far released almost 60 different sets of LOTR figures, including eight 25mm diorama sets and 11 75mm Collector Personalities. All the regular figure sets are cast in 25mm. Prices range from $3.95 for most of the regular sets to $11.95 for many of the 75mm figures. (The latter, along with the dioramas, are more suited for display purposes than for actual gaming.)

These $3.95 sets contain from one (ents) or two figures apiece (mounted figures and trolls) to eight per set (hobbits). Sets with more figures (the Fellowship, servants of Sauron) or with one large miniature (the balrog, Dunlending chieftain in chariot) are priced from two to seven dollars higher. Included in the various sets are elves, dwarves, orcs, rangers, men of Rohan and Gondor, and the individual personalities of the Ring Trilogy.

All of the Heritage LOTR miniatures are licensed by Tolkien Enterprises. While this adds to their "authenticity," it also adds a dimension that may turn off some fantasy afficionados: namely, the models for the figures are those representations featured in the Ralph Bakshi *Lord of the Rings* animated movie. If Bakshi's images of Frodo, Gandalf, and other Middle Earthers made you cringe, you probably won't be overly enthused with Heritage's figures. If, on the other hand, you felt the LOTR movie to be an apt portrayal, you should be rather pleased with the Heritage sets. Almost every important character appearing in the movie, with the sad exceptions of Bilbo, Elrond, and Grima Wormtongue, are represented. (It is rather curious, though, that the barrow wights, who weren't in the movie, have figures.) Of course, characters which were omitted by Bakshi, such as Tom Bombadil, or who won't appear until the second half of the film epic are not yet among Heritage's offerings (though some "unofficial" versions may be found in Heritage's discontinued Fantastiques line). Hopefully, such omissions will be corrected in the future.

Generally, the Heritage figures are nicely cast, with relatively fine detail on all but the smaller figures. My wife, a horse enthusiast, is particularly impressed with the mounted figures. The faces – where craftsmanship really tells – are in most cases at least adequately crafted with a few unfortunate exceptions – notably helmeted figures, some of the hobbits and the elf queen Galadriel, one of the few female figures in the series. Interestingly, the faces of the evil figures, such as the Dunlendings and the balrog, are on the whole more realistic than the others in the line. The orcs especially are truly fearsome-looking. Perhaps this lends credence to the old adage that evil is easier than goodness to portray – at least in modeling?

All of the LOTR figures seem to be in proper scale to one another, a nice point of consistency – too often lacking in some miniatures – adding to their visual appeal. I've found surprisingly few mold defects on those I've examined, and relatively little flash to be trimmed or filed away. Collectors will find that the bottoms of most of the bases will have to be filed before they will stand straight on a flat surface, however. Some, especially mounted figures, may have to be slightly bent to obtain the proper balance.

The poses that some of the figures strike seem a bit odd. A lot are spread-eagled or pointing an arm or weapon in one direction and facing the other. Gandalf looks ready to take off and fly; and Aragorn, to duel someone behind his back.

Overall, though, these Heritage figures are superior to the miniature products of most other companies with whose work this reviewer is familiar, excepting Ral Partha and some of the Minifigs figures. They are much better made than the unofficial Middle Earth figures of companies such as Archive. The Heritage LOTR figures rate at least a "B+" when compared to all other fantasy figures on the market and a resounding "A" considered in the light of the pseudo-Middle Earth figures, past and present.

In addition to the regular figure packs, Heritage has releases two LOTR Paint 'n' Play sets, *Mines of Moria* and *Helm's Deep*, $14.95 and $19.95 respectively. These two sets include the entire Fellowship pack (minus Gollum), Theoden, Saruman, several orcs, and the balrog (though, curiously, this is a different balrog than in the individual pack). These sets also include paints and a painting guide – a real help for beginners to fantasy modeling, though veterans will probably want to stick to the regular packs and their own paints and ideas. A four-page rule set for fantasy miniature gaming, *Wizards and Heroes*, is available separately for use with these sets.

Heritage also publishes a separate *Lord of the Rings Painting Guide* ($6.95) which offers useful suggestions for finishing most of the figures currently available in the series, including the 75mm figures. Handy as this is for those of us who consider ourselves beginners or amateurs, the more experienced fantasy gamers will probably have their own conceptions of the colors of Middle Earth and will want to pass this up as well.

If you wish to fight the wars of Middle Earth on your dining room or gaming room table, Heritage's LOTR miniatures, augmented perhaps with figures from your other favorite lines, will give your campaign the most authentic "Tolkienesque" feel available.

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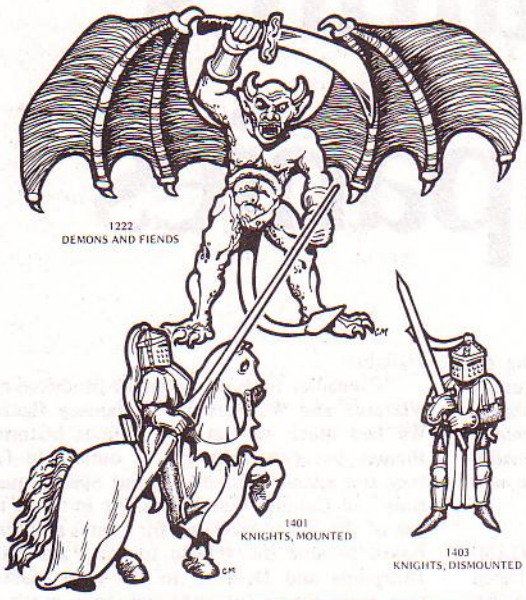

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TSG Surveys

Miniatures Companies

The miniatures industry is ancient. Some of the military figures found in Egyptian tombs look as though they might be used in a modern tournament.

But no other segment of the gaming industry is so difficult to survey as the miniatures companies. Only about half of them responded to our mailing. Several – including Archive, Bearhug, Minifigs, and Superior – did not respond despite repeated letters and phone calls. No information is included on some of the smaller companies because we were not able to obtain any. One hopes they are better about filling orders.

Except where otherwise specified, prices given below are for 25mm lead infantry figures. (15mm is catching up with 25mm, but more in the historical lines than in science fiction and fantasy.) We have made no attempt to survey the exclusively historical companies, or those which produce large figures for display rather than gaming.

ARCHIVE MINIATURES, POB 93, Burlingame, CA 94010; 415/349-7900. Sells by mail; catalog available.

Archive figures are big, even for fantasy miniatures, which are frequently oversized. Their 25mm Fafhrd figure, for example, might be used for a paperweight. The consumer is certainly paying for all this lead; 25mm figures run upwards of a dollar apiece. Moreover, Archive is guilty of galloping silliness – an egregious example being the $2.95 set "Duck Wader and the Rabbit Troopers."

On the other hand, Archive offers an excellent variety of figures. "Dungeon Nasties" includes most of the creatures in the monster manual. There is also a line of science fiction figures, and miniatures for *RuneQuest*, Arduin, and (believe it or not) *Cosmic Encounter.*

THE ARMORY, 3424 Janellen Drive, Baltimore, MD 21208. Founded 1978. Owners: Roy and Nancy Lipman. Does not buy outside designs. Wholesale only.

In 1978, Lipman got tired of spending 40 weeks a year on the road as a manufacturer's representative and opened his own business. The Armory is a major distributor of miniatures, games, and related publications. It manufactures its own line of paint, brushes, dice, and accessories.

ATTACK INTERNATIONAL WARGAMING ASSN. (also doing business as The David Casciano Co.), 314 Edgley Ave, Glenside, PA 19038; 215/887-3876. Founded 1975. Owner: Centinal Limited. Sculptors: J. Fappo, N. Bunt, C. Mangene. Sells by mail; catalog available.

Attack International offers eighty 25mm fantasy figures. Thus far, the sculptors have demonstrated more imagination than experience. There is also a line of micro space ships.

BEARHUG ENTERPRISES, INC., POB 12, Mission, Kansas 66201; 913/262-4453. President: Daryl A. Shirley. Artist: James Mirick. Does not presently buy outside designs. Does not sell by mail.

Bearhug deserves the credit for offering a real alternative to lead figures. Their cardboard Zargonians (reviewed, TSG 29) include almost any fantasy creature you would never want to meet. Price: $5.00/set (up to 60 figures).

CITADEL MINIATURES LTD., 10 Victoria St, Newark, Nottinghamshire, England; phone Newark 77495. Founded 1978. Owners: Bryan Ansell, Steve Jackson (no relation), Ian Livingstone. Sculptors: Michael and Alan Perry. "We have not yet had designs of a high enough standard offered by outsiders, but we would buy if we had!" Sells by mail; catalog $2.00.

"We had been friends for some time, and when Bryan left Asgard we decided to get together to become *the* definitive fantasy figure manufacturer. We also make the Ral Partha range under license. We soon branched out into historical and SF figures and will soon have a spaceship range in production. Ral Partha and Citadel are getting together to form *Citadel USA.*"

Citadel lines currently available include "SF Spacefarers," and "Fiend Factory," totalling 300 fantasy and SF figures (excluding Ral Partha lines).

GRENADIER MODELS, POB 305, Springfield, PA 19064; 215/328-1765. Founded 1975. Owners: Andrew L. Chernak, Ray Rubin. Buys outside designs. Sells by mail; catalog available.

"Grenadier took off when we produced our Wizzards and Warriors line of fantasy figures. We had much success with various historical themes but eventually geared ourself to fantasy and science fiction with out Space Squadrons and Gamma World lines. We initiated the use of the boxed travel set for figures and these boxes became the vehicle to carry Advanced Dungeons and Dragons to the mass market. Our main thrust for 1981 will be a much requested AD&D blister pack line. We currently employ 25 full timers and always need sculptors and artists."

Grenadier fantasy figures are sturdy and well-detailed. About 300 are available. The foam-filled box is an important innovation, which others will hopefully imitate. A boxed set, with twenty hefty 25mm figures, costs $11.00.

"Space Squadrons" was reviewed in TSG 21.

HERITAGE USA, INC, 9840 Monroe Drive, No. 116, Dallas, TX 75220. Founded 1973. Owners R.J. Stockman and Duke Siefried. Sculptors: Max Carr and Steve Bissett. Buys outside designs. Sells by mail; catalog available.

Heritage lines include "The Lord of the Rings" (reviewed this issue), "John Carter, Warlord of Mars," "Dungeon Dwellers," and "Fantastiques," comprising a range of hundreds of figures. There are also games, historical figures, epoxy foam "Scenoramics," "Paint 'n' Play" sets, and *Knights & Magick.* "*Knights & Magick* is a bridge between role-playing games and traditional miniatures, and hopefully will interest gamers of both breeds."

The Space Gamer has reviewed the "Paint 'n' Play" sets *Crypt of the Sorcerer* (issue 30) and *Star Commandos* (issue 33). *Knights & Magick* will be reviewed in a coming issue.

Heritage typically charges $3.95 for a set of four to eight 25mm figures. (Incidentally, Heritage sells a line of paints especially designed for fantasy figures. Colors include such shades as "Green Slime," "Mithrilmail," and "Undead Flesh.")

MCEWAN MINIATURES, 840 West 17th South, Salt Lake City, Utah 84104; 801/927-3357 (after 6 p.m. MST). Founded 1975. Owners: John McEwan, Alan Yorgason, Sculptor: McEwan. Buys outside designs. Sells by mail; catalog available.

McEwan sells over 400 science fiction, fan-

tasy and historical figures. Miniatures are typically sold with their hands empty and weapons separate. This allows easy customization. Until recently, McEwan "25mm" figures actually *were* 25mm. They were inexpensive, but looked rather spindly in comparison with the other brands. Recently, McEwan has started producing "25mm" figures that are 28mm. The company charges $3.00 for a pack of five.

McEwan's spaceship miniatures were reviewed in TSG 21.

MINIATURE FIGURES LTD, Box P, Pine Plains, NY 12567; 518/ 398-5166. Sells by mail; catalog $3.00.

Minifigs is known for its countless armies of historical figures – most of whom have the same face! The company's faithful but wooden sculpting techniques carried over into the "Official D&D" line, now discontinued. But the company's reputation for stodginess was seriously endangered by the creation of the "Valley of the Four Winds" line, which included many startling and imaginative sets. Now, the company reports that the "World of Greyhawk" line is selling very well, and its "Space Wars" line literally looks like nothing out of this world. Who says you can't teach an old dog new tricks?

Minifigs typically charges $3.98 for a set of eight figures. Its catalog is enormous, and worth the investment for serious miniatures gamers.

RAL PARTHA ENTERPRISES, INC, 5938 Carthage Ct, Cincinnati, OH 45212; 513/ 631-7335. Founded 1975. Owners: Glenn Kidd, Jack Hesselbrock, Tom Meier, Mark Rudin. Sculptors: Meier, Dennis Mize. Buys outside designs. Sells by mail; catalog available.

"Ral Partha was started in the basement of Glenn Kidd's home in 1975. Tom Meier was our designer. The initial line was a group of fantasy figures. Two years later we moved to our first factory, a 2500 square foot former dairy. During that period we also added our first historical lines. The first line was 1200 AD, a group of medieval figures covering half a dozen different armies. Between 1977 and 1980 we grew from 6 part time people to 14 full time, including a second sculptor. We also expanded overseas. Games Workshop of England and RAFM of Canada manufacture Ral Partha under licenses in their respective countries. This was a historical reversal of the 1960's and 70's domination of the American market by English licensees. We released our first space line during this period, a group of 12 figures in 25mm scale, primarily humanoid.

"In February, 1980, the first four Ral Partha games were released. They were introduced as simple, introductory-level games using Ral Partha miniatures, die-cut accessories and combat result matrices.

"In May, 1980, we moved to our present 9000 square foot factory."

This is the Cadillac of fantasy miniatures. For originality and detail, no one does it like Ral Partha. Prices: 79 cents per figure and up.

Final Frontier was reviewed in issue 32.

STAN JOHANSEN MINIATURES, 56 Snow Crystal Road, Naugatuck, CT 06770; 203/723-1790. Founded 1970. Owner: Stanley Johansen. Sculptor: Johansen. Does not buy outside designs. Sells by mail; catalog $2.00.

Lines include "Star Armor" (reviewed, issue 29), "Fictioneers" (reviewed, issue 32), and "Space Marines." McEwan facilitates customization by casting weapons separately from the figures. Johansen goes a step further by casting weapons *with arms* separate from the trunks of his "Space Marines" figures.

Prices: 80 cents each and up.

STEVE JACKSON GAMES, POB 18957, Austin, TX 78760. Founded 1980. Owner: Steve Jackson. Artist: Denis Loubet. Buys outside designs. Sells by mail; catalog available.

Truth in advertising does not strictly require us to remind you this company is owned by the publisher of this magazine. Nevertheless, we will. The only miniatures-related product thus far is "Cardboard Heroes" (see designer's notes, this issue).

Price: $3.00 for a set of 40.

SUPERIOR MODELS, POB 99, Claymont, Del. 19703; 302/798-0291. Products distributed through Alnavco.

Superior produces "StarFleets" (reviewed, issue 30) and "MAATAC" (reviewed, this issue). They also handle the Valiant "Stardate: 3000" line (reviewed, issue 21) and publish the magazine *Forum.*

ZOCMARZ CORP, 01956 Pass Rd, Gulfport, MS 39501; 601/896-8600. Founded 1980. Owners: Lou Zocchi, Forest Brown, Lester Schoonover. Sculptors: George Freeman, Scott Penn, Steve Lortz, Franz Joseph. Buys outside designs. Sells by mail; catalog $1.00.

This conglomerate includes the companies Gamescience, Martian Metals, and Zocchi Distributors, all doing business under their old names. Martian Metals' prize-winning *Ogre* miniatures were reviewed in issue 29. Their 15mm *Traveller* miniatures were reviewed in issue 32, and their "Dragonslayers" in this issue. Zocchi's "Star Trek" plastic figures were reviewed in issue 21.

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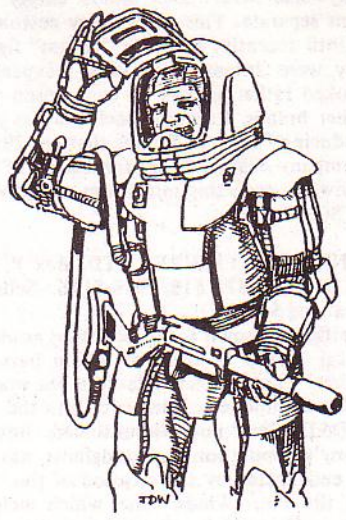
designer's notes for

ARTIFACT

by Glenn Williams



ARTIFACT is about one of science fiction's most common themes: war in space. However, unlike many similar games, it does not take place in the distant future, nor are its warriors superheroes who are as much machine as they are human. ARTIFACT brings the war closer to our own time, twenty years in the future, and its soldiers are ordinary men and women.

It begins in the opening months of the new millenium, 2000 AD, on the surface of the moon. American and Soviet scientists, engineers, astronauts, and administrators fight totally in secret over an alien artifact nicknamed "the dingus." Not even the highest political officials in Moscow and Washington are fully aware of the events occuring just over their heads.

Individual men and women fight squad level actions over a very large battlefield – the map represents about one hundred and twenty square kilometers of typical lunar terrain. Targeting, the process of finding the enemy and then locking weapons onto the target, is crucial. An untargeted enemy is almost an invisible enemy. Since there are neither stacking limits nor zones of control, a unit can attempt to walk or drive right through an opponent's position. However, a targeted unit is a dead unit unless it can scurry behind cover or over the lunar horizon and out of range.

ARTIFACT is supposed to be the training package NASA devised after the war was over. Except for the raids on installations, it can be used to simulate all engagements of the war, which only lasted eighteen months.

Background and Assumptions

Games do not spring full grown, like Athena, from the creator's head. One of the first stages of game design is nailing down the background, especially the assumptions that will guide the developer through the process. In a sense, this stage does not end until the game is finished.

The first set of assumptions concern the nature of men and women in organizations, for ARTIFACT simulates a very bureaucratic war. It is a war that occurred by accident, without conscious decision at first. There are three principles of behavior that every cynical professional bureaucrat has observed first hand (I'm a cynical, professional bureaucrat). The first is "muddling through," which for the uninitiated, is simply trying to get through the day without giving thought to tomorrow. It is the search not for best solutions, but for those which will do for the present.

The second principle is incremental decision making, a very sophisticated term which means nothing more than avoiding big decisions by making little ones. Unfortunately, the little decisions add to a big decision that may be totally unexpected! Not making a decision is also a decision, often a surprising one! Sometimes the big decision is the result of a mass of little decisions and non-decisions made by very low level people, clerks and so on. High ranking administrators are often "presented" with policies that are the result of these myriad non-decisions. That's when they start muddling through.

The third principle is my personal favorite: C.Y.A. It means "cover your ass" and is the single most important principle of government and military science. Nothing is so important as justifying your position, no matter how absurd. One never makes mistakes; one simply has not sufficiently documented one's position.

These principles explain why and how we could blunder into a secret war with the Russians on the Moon. (The assumptions apply equally to the Soviet bureaucrats, by the way.) A series of events, each slightly more serious and hostile than the one before, covered up because we don't want anyone to know what we're doing – that is the Lunar War in a nutshell. Such are the bureaucrats of ARTIFACT. They are not science fiction.

The Technology

Almost all of my assumptions were conservative; so was my technological forecasting. I used a straight line projection method. The technology of ARTIFACT is today's extended into the future with no surprises. The reasons for such a projection are many. First is the immense lead time in pushing technology from the research laboratory to the factory. The aerospace industry is plagued with this lag. It is a trivial truism that today's devices are obsolete when they reach their users.

Second, we are entering an era of budget limits. Space exploration and exploitation are increasingly viewed as a luxury we cannot afford. I assumed that these budget constraints would continue.

Third is the bureaucratic/engineering desire to test and retest until there is no risk, then back everything up with equally tested alternate systems. Such a system of development does produce very reliable and safe equipment, but not speedily. Ironically, our only casualties so far have occured in a test. Testing takes time, a very long time. All these considerations lead to an assumption that the first war on the Moon would be fought with the technology on today's drawing boards. In some cases, the technology is not known and is classified; therefore, I sometimes had to rely upon educated guesses from outdated materials.

The result of all this is that the human effort on the Moon in 2000 AD is very limited. I forsee a few small installations in one or two major areas on the lunar surface. Supporting them are research outposts of three to four people. Lunar industry is in its infancy. The first efforts at lunar mining are beginning, as well as construction of a small mass driver to test design principles to support future space colonies at LaGrange points four and five.

A small lunar effort with severely constrained budget means the war in turn would be small scale. Its history may have stemmed from bureaucratic considerations, but its nature is technological. Even the secrecy is supported by technology: NASA and its Soviet counterpart are assumed to have the ability to totally con-

trol the flow of information from the Moon.

The Game System

The game system evolved from my assumption about war and humans. The individual level of organization was chosen because of the extremely limited budget available; only a few technicians could be assigned to military duties ("special operations"). The combat environment (low gravity, vacuum) dictated long ranges for weapons; thus the ground scale chosen had to be large. Large ground scale and small organization scale meant that stacking limits and zones of control made no sense, so these conventional wargame devices are absent. The distance involved also brought the lunar horizon into the game. The horizon is most apparent in its restriction on line of sight (LOS), thus limiting targeting and direct fire weaponry.

The time scale was derived indirectly. I had to assume that constant living on the Moon would lead to learning how to walk and run efficiently. Then a low movement rate for walking troops and a high movement rate for the rovers were stipulated. Time per turn was determined simply by how much terrain an individual could cover in one turn. The time scale was strictly a function of playability.

The technology levels are simpler than in the original design. I had three tech levels; the intermediate level was dropped. The scientific tech level is off the shelf equipment and "drafted" personnel. In a way, it is analogous to the peasants grabbing their farm tools and marching off to war. Since I see mankind as an infinitely clever killer primate, and since the very people who could create sophisticated weaponry are present on the Moon, the technology level quickly escalates to military tech level. The military tech level represents equipment that can be adapted with a little effort and skill, plus a training program in military tactics. The game does not include any human technology that would be the result of a concentrated research and development program in lunar weaponry.

Underlying every consideration in design in the lunar environment. Everything about the Moon is different: gravity is much lower; there is no atmosphere; the surface curves much more than Earth's; there is very little gradual change in terrain, which tends to much greater "purity" than Earth's. The map was derived from some beautiful NASA stereoscopic photographs of the Moon's surface and the photographs and maps of the Apollo expeditions. One terrain feature, the rille, had to be dropped for the sake of simplicity. Long, winding, and shallow gullies, the rilles could be easily added by gamers. The tactical implications would greatly change some aspects of the battles.

The combat system depends upon the targeting process. Targeting is a visual process for the scitechs and electronic and seismic as well for the miltechs, who have helmet-mounted devices that automatically attempt targeting and display the information on the miltech's face shield. Targeting is essential because of the large area and small targets involved. That targeting is by hex rather than individual unit is the result of simplifying. Players who want to make targeting also a function of hex crowding are welcome to try, but it gets very complicated. Contagious targeting, whereby a unit becomes targeted and stays so if it enters a hex with another targeted unit, is also for simplicity. As the reader may gather, much of the design of a microgame is for playability rather than accuracy of simulation. (That's one reason why people keep playing a game like *Ogre*.)

The two-tiered combat system of resolving hits then resolving damage came about because of the scale and the environment. I tried combining damage and hit probabilities into a single algorithm and single chart, but it was simply too complicated. However, the general principles underlying combat are simple. Direct fire weapons use one hit process; indirect, another. Weapons doing point damage use one damage process; area weapons, another. That gives four classes of weapons.

Introduction

The lunar war began as a series of innocent, harassing actions in the closing months of the millenium. Neither the Americans nor the Soviets wanted a full-scale war on the surface of the Moon, but they did wish to impede their opponent's lunar operations, hopefully to the benefit of their own terrestrial policies. Unfortunately, the conflict escaped their control and assumed a life of its own. Actions and events seemed more in control than the senior lunar administrators. It became a series of brief, spasmodic, and bloody skirmishes which was finally terminated because neither superpower wanted to be known as a war monger, and because of a totally unique military factor: the brief appearance of the aliens.

The actual war began when the Soviets soft-landed an unmanned spy station near the American mass driver construction site. The Soviets' intention was simply to gather data on the American construction process, but unknown to them, the Americans were using an entirely new series of computers whose command control signals could be intercepted by the spy station. The spy stations, nick-named "trawlers" after their mid-twentieth century naval counterparts, were frequent companions to American lunar operations. Usually they were treated with a fair amount of disdain; one was painted with rather obscene grafitti in international orange, to the chagrin of the Soviet senior Lunar Commander. In the loose atmosphere of lunar operations, they were more of a nuisance, until the Vincent incident.

Senior Selenologist Adrienne Morgan and Mining Technician Michael Vincent were dispatched in an unarmed rover to neutralize or destroy the mass-driver spy station. For the first time, a spy station was booby-trapped, and its explosion killed Vincent. The American response was an attack on Soviet Astronomical Station Vega. All four Soviet technicians were killed and the entire station wrecked. It was a brutal response beyond the expectation of the Soviets, who were accustomed to the tampering with their trawlers and who had not anticipated that the Americans would attempt to neutralize one with people rather than demolition charges. The war had begun.

At first the two sides fought with the equipment available, with mining picks at close range, lasers intended to cut through rock, and the satchel charges used to break up boulders during mining operations. As the war escalated, so did the sophistication of weaponry and equipment used. Eventually, both sides were training and equipping technicians specifically for warfare.

Three things changed the course of the war. First, a survey team found a device in an unidentified wreckage which was apparently an extraordinarily small power source. Exactly which side found the device, jocularly termed a dingus, is not known, since both sides take credit. Once the nature of the device became known, both sides wanted it. Given the ability to analyze and duplicate the device, both sides realized that they could have the key to an unlimited budget. The only provision was that no earth-bound politician know where the new technology was really coming from. Several engagements of the lunar war were fought over nothing more than the possession of the device.

The second thing that changed the nature of the war was the sudden appearance of the aliens. Man had made his first contact with an alien species, and contrary to all official expectations, that contact was hostile. The judgment of both the administrators and politicians on both sides of the Iron Curtain was that the human race was not ready for the knowledge that not only were we not alone, were inferior. An American senator's "golden fleece" award to NASA for studying culture shock among the South Sea Islanders was received in panic at NASA-Houston, for the senior officials thought the senator knew more than he did.

The third thing that changed the war was money. A war in space is a costly thing, and when certain unusual budget requests came to the attention of the American President and the Soviet Premier, those two worthies, in mutual consultation, pulled the budget plug. The war was over. Men and women would probably not fight each other again on the Moon, but now they had another enemy, and a responsibility to be ready when that enemy returned.

Double damage becoming destruction is a function of the vacuum – life support systems are easily ripped apart and cannot be repaired quickly enough. Military level technology is more durable because it is hardened and because it has redundant systems. I viewed the weapons, vehicles, and space suits as incredibly fragile and thus easily damaged by escaping gases and flying debris.

My least favorite system in the entire game is the movement system for the landers. Because the focus of the game is ground combat, I immediately ruled out any attempt at three dimensional representation of the landers. They are assumed to be high enough to avoid hitting mountain peaks and allow positive ground control from their headquarters. Lander pilots fly under the principle "better safe than sorry." Their vehicles are not hot fighters, but lumbering freighters; thus the movement restrictions that limit them to a one unit per turn velocity change and the straight line movement path. I would have preferred a vector system as in SPI's *Battlefleet Mars* tactical system, but that would have been too complicated.

The last design principle of human technology is that all equipment is on pallets. A rover or lander can carry any of several pallets; all that is required is for a maintenance crew to pull off the existing pallet, put on another and plug it in. Thus, rovers and landers are not specialized.

The Aliens

The aliens are the joker in the deck. I designed ARTIFACT more as a game system than as a game, and the aliens are a test of the game's flexibility. My original aliens were simply super miltechs, just another straight line projection. Then, Howard Thompson suggested the game needed a gimmick, some zip, and Keith Gross suggested that the victory conditions were too complicated (I had used victory points, so many for each tech killed, etc.). I sat down with a bottle of wine.

The alien killing spheres are microwave ranges gone mad. Their inspiration came from a friend at work who firmly believes that he is dying a horrible, lingering death, as well as becoming sterile, because I heat my lunch in a microwave oven. The same fellow has a paranoid fear of UFOs and driving on lonely stretches of road that flying suacers like to patrol. He believes that Pioneer, with its little gold plaque and "Murmurs of Earth" is nothing more than a billboard that says, "Free lunch, this way." In a way, I agree, and my aliens are his demonic UFOs.

There is no guarantee that our first contact will be friendly; in fact, the universal faith in the peaceful nature of galactic explorers has always seemed to me to be just that: faith. In our first contact we may find ourselves no better able to cope than were the Incas when faced with steel-clad, musket-toting conquistadores. The whole purpose of the alien scenario is to show our fear of the unknown and tendency to destroy what we do not understand.

The dingus was designed to allow simple win-lose victory conditions. While battles are not always win-lose affairs, the microgame format does not lend itself well to shades of victory. The dingus, an incomprehensible bit of alien technology, is a booby-trapped football. That it becomes a risky way to win is due entirely to my own malevolence. It should make its possessor very cautious. The name comes from Dashiell Hammett's *The Maltese Falcon*, wherein Sam Spade, the hard-boiled detective, calls the jewel-encrusted golden statue "the dingus."

The disadvantage of the dingus was that I had to rework all my scenarios to accomodate it. At the same time editorial considerations required a choice between bookkeeping installations and the weapons needed to attack them or the aliens. Reluctantly, I chose the aliens. I will revive installations in the following article.

expanded rules for ARTIFACT

by Glenn Williams

Designing to the constraints of a microgame requires some very painful cutting, sometimes of things the designer thought essential, but which simply could not fit into the package size. What follows are some of the more important things that I had to leave out of ARTIFACT. None are absolutely essential, which is why you didn't see them in the published version. Some add realism, some help playability, and one or two are even products of hindsight. If you are enjoying the game without them, or have better solutions, feel free to play your way.

1.0 ADDITIONS

1.1 Force Counters. Stacking the many counters of a microgame requires dexterity and patience. This rule simplifies that problem. Any time a player has more than one counter on a hex (except installation counters, see below), he may replace the counters with a single counter which has only an identification code. All counters included in the force thus designated are removed from the map and recorded. Until the force's hex is targeted, the player need not reveal what is in the force. Landers may never be part of a force when aloft.

1.2 Limitations. A technician of any type may never carry more than eight rockets. A miltech may carry no more than five smart missiles. Use of rockets and smart missiles must be recorded. Pallets remain unrestricted. A scitech may never use a smart missile under any circumstances. (See 7.0.)

2.0 INSTALLATIONS

2.1 Placement. An installation may be placed in any hex, but no more than one installation may be placed in any one hex. When the mass driver counter is in play, the arrow must be aligned to face a path of clear hexes to the map edge. (The mass driver may not be used for attacks, under these tactical rules.)

2.2 Entering and Leaving Installations. Techs, vehicles, and landers may enter and leave installations freely using the normal rules for loading and unloading for vehicles or lander movement. No unit may ever enter an enemy installation; however, there is no limit on the number of friendly units of any type which may be in an installation. Units in installations may not target or fire. ECM pallets may be used, if there are operators. The owner need not reveal the contents of an installation. (Cupolas, of course, are visible from the outside.)

2.3 Damage. Installations take damage in points rather than levels of damage. Each installation type is rated for the damage it can absorb and still remain operational. When an installation reaches 50% damage level, landers may no longer enter or leave. When damage reaches 100%, the installation and all units within are destroyed. Damage points by weapon type are shown on the new damage chart.

2.4 Pallet Change. A vehicle inside an

installation may be assigned new pallets. The vehicle must spend two full turns inside the installation. An installation may contain any number of pallets.

2.5 The Cupola. When the automatic weapons cupola is being used, it is considered a separate structure from the installation, but must still be in the same hex. (See 3.6.)

3.0 WEAPONS

3.1 Porta-Pallets. A pallet of any type may be removed from a vehicle. Removal requires one full turn and two techs who may perform no other actions. At the conclusion of the second turn, place a porta-pallet counter in the hex. To be used, the porta-pallet must have an operator assigned.

3.2 Satchel Charges. Instead of a rocket, smart missile or other type of weapon or equipment, a tech may carry a satchel charge. The satchel charge is placed in the hex the tech begins or ends his movement phase in and detonates in the following combat phase that the tech could attack. A satchel charge affects all units in the hex (except flying landers). A tech can be "hoisted by his own petard." If a satchel charge is placed, it must be announced, but it can never be defused. See the new damage chart.

3.3 Bomb. A satchel charge dropped from a lander. A pallet contains two satchel charges. One or both may be dropped on any hex along the lander's movement path. Effect is in the following appropriate combat phase. Use rocket line for hit. The range is the same as the speed of the lander.

3.4 Orbital Particle Beam Generator (OPBG). This off-map weapon affects three mutually-adjacent hexes anywhere on the map, providing at least one of the hexes has been targeted. This weapon is available only every third turn in the All Units Combat Phase. Its effect is that of a laser affecting all units in a hex. Range is always 3 hexes. An OPBG may not target.

3.5 Tactical Observation Satellite (TOS). This off-map targeting system may attempt one targeting anywhere on the map in each targeting phase. It targets as an RSVP at range four. In addition, it holds targeting data on all enemy units targeted. Thus, enemy units do not lose targeting when they move out of the LOS of an opponent.

3.6 Automatic Weapons Cupola. A robot turret with its own targeting system, it is mounted on top of an installation. The player may select either a laser or mortar for the cupola weapon. The cupola targets as an RSVP and takes damage as a military rover. It may use both sets of targeting and combat phases. The nature of the weapon of the cupola does not have to be revealed until used. No installation may ever have more than one.

3.7 Drones. Unmanned, armed landers of small size, these robots may carry and operate one lander pallet; no passengers, or other cargo. Movement is exactly the same as for landers. Drones are considered military landers for combat purposes. They may never be used to attack landers.

5.0 ELECTRONIC COUNTER-MEASURES

5.1 ECM Pallet. A vehicle may be equipped with a special electronic countermeasures pallet. It must have an operator assigned to it (unless it is part of a drone).

5.2 ECM Use. A player wishing to use ECM places an ECM counter (not to be confused with a *pallet* counter) on top of their opponent.

thus switched on during the All Units or Military Targeting phases, depending upon the operator's tech level. It must be switched on in sequence, when the owning player would be eligible to make a targeting attempt. ECM continues to function until switched off. The player may switch off simply by removing the ECM counter at the end of any combat phase (depending upon the operator) in any subsequent game turn. ECM affects all hexes within five hexes of the ECM counter.

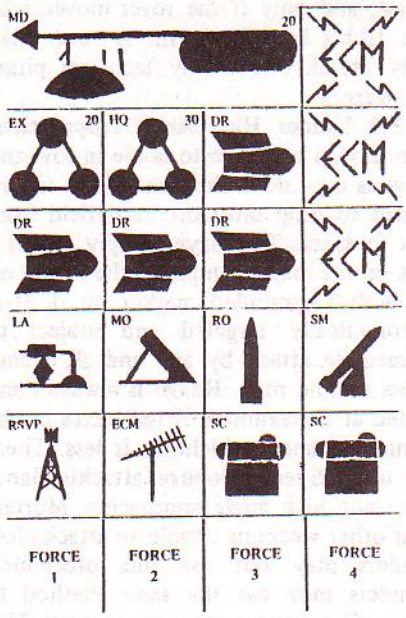
5.3 ECM Effects.

5.31 Dazzle. All targeting counters within the range of the ECM unit are removed, at the time it is switched on. Subsequent targeting attempts are not affected by dazzle.

5.32 Targeting Effects. All targeting attempts except those by scitechs and those using the scitech targeting line, are at plus two. No targeting is automatic. Targeting of units outside the ECM zone is not affected. Any unit may opt to use the scitech targeting line, which is always exempt from ECM effects.

5.33 Smart Missiles. Smart missiles will not work within the ECM zone, except to attack the ECM unit (assuming it is targeted). If attacking the ECM unit, all combat rolls are normal.

Hardware



Above are installation, ECM, drone, pallet and force counters for the expansion of ARTIFACT. Permission is given to photocopy. Below are a description of the hardware deployed in the Lunar War, and a table showing restrictions on the use of pallets.

Laser: Continuous pulse, gas dynamic, venting directly to the vacuum. The power source and computer controlled aiming mechanism required pallet mounting, although detached lasers using umbilical cords were tried without marked success.

Rocket: Small thruster motors with mining charge warheads. The warhead was encased in a specially scored aluminum case that fragmented into thousands of splinters.

Smart Missiles: A small thruster motor with a precision munition guidance pack, purloined from USAF or Frontal Aviation stocks. The warhead was designed to explode along a single vector, rather then the broad area covered by the rocket.

Mortar: A rocket launched in a high angle, directed by computer so it required a pallet for aiming and control. The warhead was somewhat larger, but not appreciably so.

Rover: Both scientific and military rovers were conventional lunar vehicles powered by fuel cell with their own life support systems. They could carry a variety of pallets.

Lander: A local freight and transport vehicle. Not very maneuverable and very vulnerable to any kind of fire.

The Weapons Classified

	Point Damage	Area Damage
Direct Fire	laser	rocket
Indirect Fire	smart msl.	mortar

Vehicles and Pallets

Pallet type	Rover	Lander
RSVP	yes	no
Laser	yes	yes
Rocket	no	yes
Mortar	yes	no
Smart Missile	no	yes
ECM	yes	yes

(Note that in the Unit Capabilities Chart of ARTIFACT the capability of rovers and landers is listed as "Weapons Mounted" – the number refers to the number of pallets the vehicles can carry.)

6.0 COMMAND/CONTROL

6.1 Basic. The technicians who were "drafted" to fight the Lunar war were not military professionals. They were not accustomed to the rigor of military art, nor were they able to act effectively independently until late in the war.

6.2 Commander. One tech on each side must be designated as the force commander and one tech must be designated deputy commander. The player never has to reveal which techs are his commander and deputy until after the game is over.

6.3 Command Radius

6.31 Scitechs. Scitechs must remain within LOS of their commander or deputy. If they leave LOS, they may only return to it. While out of LOS of their commander or deputy, they may not attack unless they are in the same hex as their opponent.

7.32 Miltechs. Miltechs must be within LOS or eight hexes of their commander. A miltech out of this command/control radius may only move so as to return to command/control or to accomplish a victory condition (such as attack an installation), and then only if it can be accomplished that turn or the next. A miltech out of command/control may always attack an enemy.

6.4 Command/Control and Landers. Landers are never subject to command/control. Commanders and deputy commanders may be on landers and thus have LOS with any hex on the map.

6.5 Command/Control and Mixed Forces. In vehicles with mixed crews, the status of the driver determines the type of command/control for the vehicle. Mixed forces acting independently are individually subject to the command/control restrictions.

7.0 SCITECHS IN MILTECH POSITIONS

Scitechs may be assigned to positions ordinarily filled by miltechs, such as drivers and pallet operators on a military rover. When they are so assigned, they still function as scitechs with scitech restrictions. They may never use miltech targeting nor operate smart missile launchers, as their suits do not have the necessary built-in equipment, nor do they have the training to do so. They may only target or fire in an All Units phase.

8.0 NEW TYPES OF MOVEMENT

8.1 Rover Overrun. If a rover ends its movement phase in the same hex as an enemy dismounted tech, it may attempt overrun. All types of rover are treated as a scitech in hand to hand combat, but they may not be attacked in hand to hand combat by the tech. The overrun occurs during the hand to hand combat phase, and only if the rover moved into the tech's hex that turn. A rover may only attack one enemy tech per phase by overrun.

8.2 Lander High Angle Approaches. Landers do not have to come in low and slow as they do in the game. They can attempt to drop onto the battlefield from out in space. The player simply selects a hex on the map, then places the lander on it, with a grounded marker on it. It is automatically targeted and subject to immediate attack by any and all enemy units on the map. Range is always computed at a maximum of ten hexes or the actual distance, whichever is less. There are no LOS restrictions on attacking landers using high angle approaches. Mortars and other weapons unable to attack aloft landers may not use this procedure. Landers may use the same method to take off, subject to the same attack. This is a quick but dangerous way for landers to get on and off the map.

CONCLUSION

As I said in my Designer's Introduction, ARTIFACT is supposed to be more of a game system than a game. It is also more the property of the wargamers who play than my (or even Metagaming's) property, although I'm sure both parties would frown on copyright infringement. However, these expanded rules just about take the game as far as I wanted to go with it. There are some obvious holes in the game system; better lander movement and some form of personal weapon such as assault rifle, to name two. Hopefully, a gamer somewhere will decide he knows just what the game system needs, and write an article for *The Space Gamer.* I had originally intended to add role-playing modules and some miniatures rules for smaller scale actions (such as raids inside installations); however, I'll leave those types of things to the gamers.

If anyone has any questions regarding the game, its background and so on, feel free to write me. In the meantime, have fun with *your* game.

New Damage Chart

Target	Techs		Rovers		Landers		Install.
Weapon	Sci	Mil	Sci	Mil	Grnd.	Flying	Pts.Dam.
Laser/Sphere	1-3	1-2	1-4	1-3	1-4	1-3	1
Rocket/Mortar	1-3	1-4	1-3	1-2	1-4	*	2
Smart Missile	1-2	1	1	1-4	1-5	1-2	2
Satchel Charge/ Bomb	1-5	1-4	1-3	1-2	1-4	*	4

*Prohibited

Point System

This is a point system for constructing new scenarios. Units are rated, not by economic, but by military value.

Unit	*Points*
Satchel charge	1
Other hand weapon	2
ECM pallet	5
Other pallet	2
Sci-tech	3
Mil-tech	7
Sci-rover	1
Mil-rover	3
Sci-lander	3
Mil-lander	5
Experimental installation	12
Mass driver	12
Headquarters installation	18
Cupola (including weapon)	9
Drone	8
OPBG	12
TOS	15

Note that all units must be bought separately. The price of a vehicle does not include driver, pallets, and operators. The price of a tech does not include weapons. (The price of a cupola includes a laser or mortar; a cupola does not require an operator. The price of a drone does not include a pallet; a drone does not require an operator.)

Here follows an example of a scenario constructed by the point system.

On July 15, 1999, American forces attacked and destroyed Soviet Astronomical Station Vega. That is what happened. What would have happened if the Russians had a little warning *might* have been very different . . .

Forces: The Soviets get 100 points of units (any type). They *must* include one experimental installation. Only one installation may be included.

The Americans get 120 points of units, of any type except installations.

Set-up: Before the game starts, the Russians secretly select their forces and secretly designate the hex containing the installation. The Americans secretly select their forces and secretly designate the side of the map (north, south, east, or west) they will enter on turn one.

The Russian player then places his installation on the map. All Soviet units, except those in orbit, are considered to be in the installation.

The American player automatically has initiative the first turn. All American units, except those in orbit or using high angle approaches, must enter from the designated side of the map. Landers using low angle approaches may not enter at a speed greater than four.

Victory: The Americans win if they can destroy the installation by the end of turn 10. Otherwise, the Russians win.

CARDBOARD HEROES

Designer's Notes

by Dennis Loubet

The Cardboard Heroes we have planned so far are mostly monsters and bad guys. Set two, as a matter of fact, will consist of assorted orcs, goblins, and evildoers. Beyond that, the ideas get a trifle nebulous, but we have plans for some undead types that'll knock your eyes out, large nasties like ogres and trolls, and maybe some really BIG critters like dragons and such. All in all, I think we have tentative plans for about five sets, but after that, the future of Cardboard Heroes is up to you. Buy them and we'll do our best to respond with more of these little guys than you can shake a stick at.

Currently, Steve, Forrest, and I are trying to determine exactly what orcs and goblins are supposed to look like. The player characters were easy because humans, elves, dwarves, and haflings are blessed with universally accepted appearances. Orcs, however, vary from pig-faced midgets to grumpy neanderthals. Goblins are even worse.

At the moment it looks like the "Pig-faced Midget" faction is going to be defeated by the Neanderthalites.

I can't please everyone, but I can please myself. I had a lot of fun and a lot of frustrations doing the heroes, and when I looked at the printers' proof sheets I was glad I had gone through with it. I kept telling myself I was crazy to take on the gargantuan task these little people proved to be. All the revisions, all the touch-ups, all the time and effort I put into them, lent credence to that. But when I held those sheets in my hands, with all those characters looking so pretty, it just blew me away.

It took me a whole month, but I expect the next bunch and those following to take less. Now I know what I'm doing. Now I know how to handle the paints and in what order things should be laid down.

The way I did these fellows is fairly simple. I sketched out the character in pencil first and then went over it with some permanent, fine-point markers. This I did on tracing paper, which was the only non-absorbent paper I could find. (Next time I'll be working on some great coated stock that Steve managed to scrounge up.) Each original was only two inches high – slightly less, actually – and they were all done on the same large sheet of paper.

After touching up the pen lines with my white acrylic, and erasing the pencil work, I would go in with my watercolors. I'd try to lay down an even color in each area, and try to keep the colors from mixing. Then I'd go in with the white acrylic again for the highlights. The acrylic, thinned with water (well . . . *spit*, actually) blended with the colors well, and yielded some superb gleams. Then I shaded with denser colors.

After that, the figures went through a touch-up phase that lasted up to the minute they were sent to the printers. They were practically grabbed from my hands at deadline. I just kept finding infintesimal ways to improve the character, fixing up tiny details and mistakes. It was tedious.

But it was worth it. They look really good. I couldn't believe the great printing job. Details I didn't believe would show up are there in gorgeous technicolor, and I'll have to do the next bunch with that in mind. I'm really pleased.

I hope you'll be pleased, too. I think they'll really add some pizzazz to your FRP games. We purposely put identification on the *bottom*, so you can easily relabel the figures, if you prefer. They aren't die-cut because die-cutting isn't very accurate, and we didn't want to cut off any part of a character. (It also reduces the price you have to pay.)

Anyway, if these little guys are a success, then we can have all sorts of fun with them. I may draw characters for contest winners or black and white heroes for those who like to paint their own. There's no limit. So have fun with these guys and let us know what you would like to see next.

THE NOSTALGIA TRADER

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We will be dedicating issues to different fields of collecting, like movies, games and miniatures, baseball cards, and more. The January issue will be dedicated to Games and Miniatures with reviews on some of the new games on the market. Subscriptions are only $7.50/year (6 issues) and receive a free 30-word classified.

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A Publication for the Collector

Painting Fantasy Miniatures

ADVANCED TECHNIQUES

by Spalding Boldrick

In selecting a color scheme for your miniature figures, the first thing to remember is that different lighting conditions can greatly affect appearance. Always try to paint under lighting conditions similar to those under which the miniature will be viewed. This means avoid fluorescent lighting like the plague, for either painting or viewing. It thoroughly warps color values.

The second consideration has to do with scale. Generally speaking, the smaller the scale, the lighter and/or brighter the colors have to be to look right. A flesh color which looks perfect painted on the back of your hand will be somewhat too dark for a 54mm figure, and way off for a 25mm figure. A shade which will look terminally anemic on a full-sized person is just suited to one an inch tall. The same applies to almost all other colors except for extremes of white and black, metallics, and in certain specific areas such as eyes (discussed below).

This also applies to the finish of a figure (i.e., the degree of shine): what looks best glossy on a large figure is best finished as a semi-gloss or even flat on a small one. Remember that the final protective coat will tend to dull colors somewhat (flat to a greater extent than gloss), so plan ahead accordingly. It's also well to remember that the final protective coat need not be exclusively flat or glossy; both can be used on the same miniature to achieve differential effects. For example: patent leather, silks and metals look best with a glossy finish; almost everything else looks best with a flat finish. Horses' coats are sometimes best finished as a semi-gloss; the same applies to most other smooth-furred animals.

Don't be afraid to mix painting media (on the figure, not in the tray). Acrylics, contrary to some reports, can be used effectively over enamels or oils, provided the latter are thoroughly dry. Acrylics generally offer brighter colors than other kinds of paint and can be especially useful for highlights and other effects.

Finally, don't overlook the potential of odd-ball paints for special effects. For instance, fluorescent paints over a white base coat can be used for flame/light effects and eerie eyes even if you don't plan to try gaming under blacklight (the mere thought of which gives me a headache).

Ultimately, the choice of color is entirely up to you. If a dwarf with purple pants (I have one, by the way) suits your sense of what is appropriate for a gaming miniature, then by all means paint it that way, even if you wouldn't be caught dead putting such a thing in a diorama or painting it that way as an individual model.

Blending and Shading

Unless you're painting to diorama or display standard, you can also forget everything you've read about blending, and most of what you've read about shading. Remember, it's the overall effect that counts; a gaming miniature doesn't have to stand up to close scrutiny. It's largely useless trying to blend enamels and acrylics anyway; the drying time is too fast. It can be done, but it's hardly worth the effort. Oils can be blended, of course, but take forever to dry. Blending can be approximated by a carefully applied wash of an intermediate color, especially if the surface is fairly heavily textured (e.g., coarse fur, etc.).

The same thing applies to shading. Almost all the shading necessary on a small figure can be accomplished by washing a darker shade of the same color over the area. Don't try to shade by using a wash of black, brown or grey (unless that's your base color); it usually isn't satisfactory. Finally, remember that on a small figure, you need a higher degree of contrast between highlights and shaded areas than you would use on a larger figure.

Most of the blending and shading effects that can be done with washes can also be done by dry-brushing, and usually can be done more quickly and easily that way. This is particularly true of highly detailed or textured miniatures, especially animals or large figures. Dry-brushing is least effective for metallic areas or on very small figures or parts of figures. For painting fur or similar textures, it is by far the best technique, and is much easier to control than a wash. However, dry-brushing tends to be very hard on brushes, especially if (like me) you tend to let the paint on the brush dry almost completely before beginning. Luckily, you don't need an expensive brush for dry-brushing; almost anything will do. I've even used a toothbrush (not recommended). It would be worthwhile to get a few inexpensive plastic bristled brushes (like Testor's) that don't shed. Otherwise you might end up spending half your time picking brush hairs off your finished figure and the rest of your time running out to buy new brushes.

Metals

Most gaming miniatures are metal, and this circumstance can be used to good purpose on any miniature which represents large areas of metal – a robot, a knight in armor, or whatever. After the usual preparation and before priming, polish the areas with steel wool or very fine sandpaper. Next pick out the details of rivets, crevices, joints, etc. with a wash of black. You can also try washes of brown, rust, or even blue to vary the effect. Highlight the appropriate areas with small touches of your brightest silver. The final protective finish is especially important here, because most of the metals

used in manufacturing miniatures will tarnish sooner or later (mostly sooner) on exposure to air. What's worse, because of the washes and painted highlights, different areas will tarnish at differnt rates, and the final result can be positively bizarre. So be sure that all areas where this technique is used are well coated (gloss is best) to prevent contact with the air. The non-metallic areas are primed and finished in your usual fashion.

When using metallic paints to represent metals other than iron or steel, or on areas where the foregoing technique is impractical or otherwise unsatisfactory, the most important thing is to get the paint on as smoothly as possible. This means that the paint must be lump-free, and brushed on rapidly and freely, preferably in one coat, to avoid any hint of brush strokes. If necessary, brush it on more thickly than you would other paints; it's better to lose a little detail in order to achieve a smooth finish. Allow it to dry *thoroughly*; metallic paints dry more slowly, and pick up fingerprints more readily and irreversibly than any other paint. Metallic paints will tarnish eventually, too, so particular care in the final finish is necessary here as well.

It's also useful to note that metallic thread such as gold or silver lace or braid, or cloth-of-gold, does not really look like gold metal, no matter what the scale of the figure. The surface texture is rougher, and it actually helps if your paint is a little lumpy. A good approximation can be achieved by using gold or silver ink. It is usually less smooth than paint, and since it goes on thinner, it will be roughened somewhat by the surface texture underneath. If all else fails, try toning down the shine by using a semi-gloss or flat finish on these areas.

Details

You can also forget everything you've read about painting eyes, and not just because they're hard to paint. Take a look at somebody sometime, and notice how very little eye detail you can actually see at any distance over a few feet. A lot of people who paint miniatures spend a great deal of time and effort painting eyes, only to end up with things that look like last week's fried eggs. As far as I'm concerned, no eyes at all is better than bug-eyed (unless, of course, you happen to be painting a BEM).

So, on any gaming-size miniature (i.e., about 25mm or less), forget all about whites, irises, pupils, etc. Try a medium brown line to begin with, about where the upper lid would be located. If this looks insufficiently detailed, try adding a flattened dot just under it. If you're no good at painting tiny dots, try poking a hole (not too large or deep) into the paint with the point of a pin. (Don't laugh; it sometimes works with small figures, especially if the hole isn't too big). Sometimes a simple wash of medium brown paint in the eye-socket area will suffice.

Still, some miniatures are so detailed that failure to make best use of all that detail seems almost sinful. So if you give full treatment to a miniature's eyes, note that contrary to the general rule of overstating colors, contrasts, etc., on smaller scale figures, eyes should be *under*played. Whites should be light grey rather than stark white, lashes and lid-lines should be medium brown and not black, and black and dark brown should be avoided as iris colors. If a pupil seems essential, try a *very* small pin-hole rather than trying to dot it in.

Some miniatures have too little detail, and you might wish to paint in such items as straps or buckles. Since such painted lines or squares representing raised details are rarely effective by themselves, their realism can be enhanced by first scribing their outline into the metal with the point of an X-Acto knife. This will give definition to the area to be painted, and will pick up any shading washes used on the figure. The result will be much more effective than a simple painted line or blob.

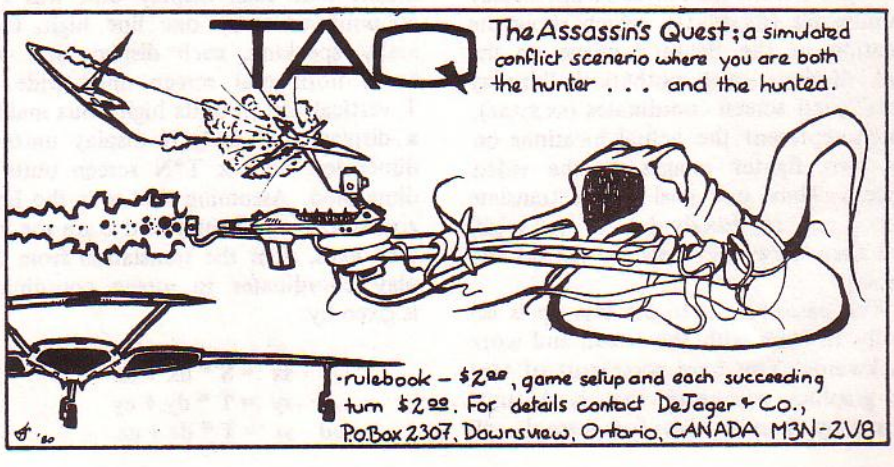
Another way of achieving substantially the same result is to outline the area or object after painting with a very fine-pointed pen, such as a Rapidograph. If you haven't got or can't afford an expensive drafting pen, try using a very fine pen nib, like a Crowquill mapping point. Inks of various colors can be used over paints with very good results for picking out, enhancing, or creating all kinds of detail. The important thing to remember is to make sure the paint is *completely* dry, or you will not only end up gouging a furrow in the paint job, but you will also clog and otherwise mess up your pen point; an undesirable result whether it costs you ten dollars or ten cents.

Final Words

Finally, a word about references. The goal in painting fantasy miniatures should be to combine imagination and originality with believability. Obviously, we can't all be creative geniuses, or we'd all be out designing and marketing these things instead of buying and painting them. So references can be as valuable for fantasy miniatures as for historical miniatures. Since there aren't any definitive works like *A Field Guide to Orcs*, or *Jane's All the Galaxy's Starships*, the starting point must be in the real world. Basing an imaginary color scheme on a real counterpart, whether it is using the pattern of a snakeskin for a dragon or the paint scheme of a battleship for its deep space cousin, will serve to enhance a miniature's believability.

The creativity comes from using and modifying such references in an unusual way instead of slavishly copying them. A good painting is a much better reference than a good photograph. Try comparing a photogrph of a leopard with a painting of one and see which you'd rather use as a painting guide. Since what you're trying to do is achieve a similar result painting a three-dimensional object,a good painting gives you a head start by showing you how somebody else did it in two dimensions.

The most important rule in painting fantasy miniatures is that there are no rules. Don't be afraid to experiment. By the very nature of things, most experiments will be failures (there's a certain gold and electric blue dragon I once did that still haunts my dreams), but that's what paint solvents are for. The main thing is to find a style that suits you. You don't have to please anyone but yourself.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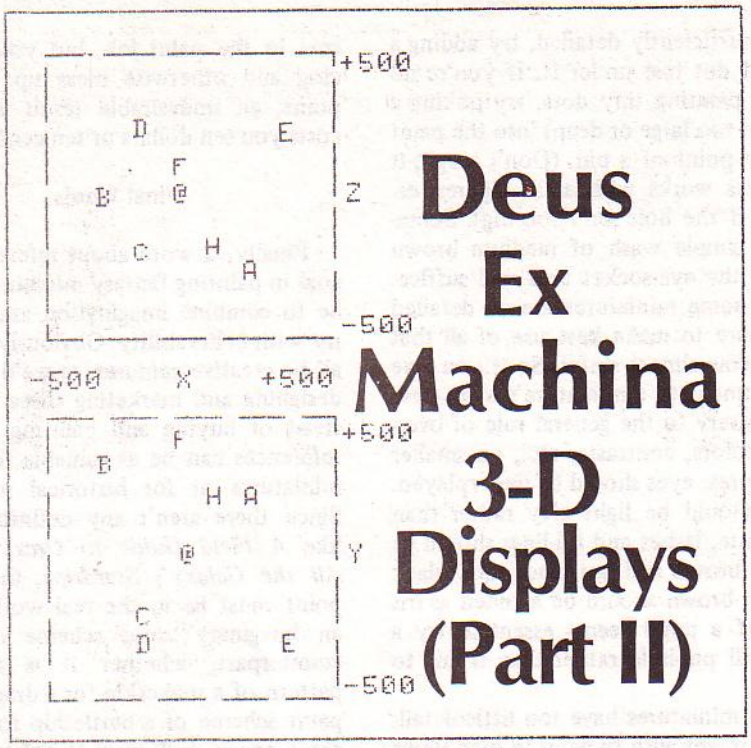

Deus Ex Machina 3-D Displays (Part II)

by Bruce Webster

In my last column, I described a technique for showing the relative positions of objects in three dimensions using a two-dimensional display. I used a very specific example in order to make the explanation as clear as possible. This month, I would like to discuss the method in more general terms, as well as give some pointers on how to implement it.

To briefly summarize last month's column, we are using two displays, each of which shows two coordinates, with one coordinate being shared by both displays. The units being displayed were enemy fighters attacking the player's single ship, around which the display is centered. In generating the display, there are three sets of coordinates involved: object coordinates (ox,oy,oz), which are the "real" coordinates of the enemy fighters and represent the displacement in object units (say, kilometers) along each axis of the fighter from the player's ship; display coordinates (dx,dy,dz), which show the location of the fighter's image on the two displays in hypothetical "display units"; and screen coordinates (sx,sy,sz), which represent the actual locations on the two fighter images in the video screen. Thus our goal is to translate (ox,oy,oz) to (dx,dy,dz) to (sx,sy,sz) and then draw the images at (sx,sy) and (sx,sz).

The easiest way to set this up is actually to start with the screen and work backwards. You have some sort of text or graphics capability that is A units across by B units high; for example, 40 characters by 24 lines, or 280 pixels across by 192 lines (a "pixel" is the smallest dot that can be drawn on a graphics display). Somewhere in there you must fit your two display, one centered at (cx,cy), the other at (cx,cz), where (cx,cy,cz) are in screen coordinates. You must then decide the dimensions, in screen coordinates *and* display coordinates, of each display. This usually involves some adjusting and refiguring to get the optimum values. Generally speaking, you want the value of a given dimension in screen coordinates to be a multiple of the corresponding value in display coordinates. In last month's example, my displays were 11 display units high by 11 display units wide. I was using a text display, where there is an inherent distortion since characters are taller than they are wide, so each display became 22 columns wide by 11 lines high. This meant that each display unit was two columns wide by one line high. Generally speaking, each display unit will be S horizontal screen units wide by T vertical screen units high, thus making a display that is NxN display units in dimension S*N x T*N screen units in dimension. Assuming that x is the horizontal axis and that y and z are the vertical axes, then the translation from display coordinates to screen coordinates is given by:

```
sx := S * dx + cx
sy := T * dy + cy
and sz := T * dz + cz.
```

Now, for a center-based display such as the one in Figure 1, it is best to set up the displays so that both dimensions in display units are odd. This is so that you can have a unit right in the center of each display. You can now give this unit the display coordinates (0,0,0) and number outwards. The maximum value for the coordinates of any display unit within the display will be (±m,±m,±m) where m = int(N/2), assuming the display is NxN display units in dimension. This will allow us to check if an object is displayable; if the absolute value of any of its display coordinates (dx,dy,dz) is greater than m, then the object is off of the display and should not be shown.

Now we've defined the displays and placed them on the screen. Our next task is to determine how to translate the object coordinates of the fighters into display coordinates. To do this, we need two pieces of information: the range of the display and the object coordinates of the center of the display. Range is defined here as the number of object units (kilometers, or whatever) that correspond to the distance in display units from the center unit to an edge unit (which is m display units away by our definition above). We will probably usually pick a single range for all three axes, so that our display is undistorted; however, we may *want* to distort the display in order to maximize information, so we will use three range values (rx,ry,rz), which may or may not be the same. We now need the object coordinates (x0,y0,z0) that correspond to the center of the display. In our previous example, this was simply (0,0,0) which made things very simple; however, if we let the player have *two* fighters, he may want to see how things look from the perspective of each one, so we will use this general case.

Having this information (which is usually supplied by the player), we can now proceed to display the fighters (or whatever). First, we will generate a scale factor for each of the three axes, (scale_x,scale_y,scale_z), where these are defined as:

```
scale_x := m/rx
scale_y := m/ry
and scale_z := m/rz.
```

Now to convert object coordinates (ox,oy,oz) to display coordinates (dx,dy,dz), we simply use

```
dx := scale_x * (ox - x0)
dy := scale_y * (oy - y0)
and dz := scale_z * (oz - z0).
```

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We then take (dx,dy,dz), translate it to (sx,sy,sz) as shown above, and display whatever IDs we are using for whatever objects we're displaying.

How to Use It

With the technique I've described, you will notice a number of results. First, objects' IDs will be drawn over each other if more than one object occupies the same display unit on a given display. I feel that this is a legitimate effect and that it corresponds to the fact that, at the range of display you are using, those objects are too close together to easily distinguish. The solution to seeing them is the same as in real life: get closer and use a shorter range display. Also, depending upon how you test for visibility, you may let an ID show up on one display but not on the other if two of the coordinates (say, x and y) are in range, but the third (z, in this case) isn't. That is your choice. In my *drawfighter* routine last month, a ship had to have all three coordinates within range to be visible.

Another problem you may have is deciding how to update the ships' positions on the display as the game progresses. Do you do all the position updates and then move all the ships? Do you move each ship as its position changes? Do you re-draw ships if they don't move? What about ships that are "stacked up" on each other? Again, these will be decisions which you will have to reach for each application of this method. If you are going to update positions only if a ship moves, then the best way to do it is to keep track of the *display* coordinates of that ship from the last time you drew it, rather than object coordinates. Why? Well, if your range is sufficiently long, a ship may be moving quite nicely but only shift its position on the display every few turns. There is one problem to re-drawing ships only when they move, though, and that occurs when ships are "stacked" on top of each other. If ship A and ship B occupy the same display unit on some display, with ship B having been drawn last and thus being the only one visible, and if ship B moves and ship A doesn't, then what happens? Well, ship B gets erased and drawn elsewhere, and ship A stays invisible. So you'll have to check for that as well.

I have been rather specific in my discussion of these displays for the sake of clarity. You can be much more flexible in how you set this up. For example, you can make the displays rectangular instead of square, or, with a little work, you can even make them circular. You can place them side by side or even in different corners of the screen. You can have "blind areas" on the display, such as the region "behind" the fighter on the x-y display. You could put two 3-d displays side by side, each one representing a different central position. You could even simplify the technique and use it for two-dimensional displays! It's up to you.

Next Month

I'm not sure yet what's coming up next month. I am currently considering a long series of articles, not necessarily concurrent, on implementing an existing game onto a computer, possibly using *Ogre* (which I have worked on for a few years) as an example. I also have articles brewing on "Play-by-mail" games that bypass the Postal Service and use home computers and Ma Bell instead, two- and multi-player games that involve hooking computers up directly to each other, and one which I promised in my first column but have yet to write: using your computer to help gamemaster a role-playing game, or "the computer as familiar." Buy next month's issue and see what I decide upon!

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You, task chief of the Leopard people wandering tribe of crane, sit in your great wagon awaiting news from your swift searching outriders. Suddenly hoof beats approach. The outriders leap from their mounts to your wagon flushed with excitement for they know full well the meaning of their news. But one sector to the North the great merchant caravan of the Impala people has been spotted. The order is given, "To arms... to arms!" You snap your orders, "Gather my captains of hundreds. Let all know the tactic will be enfilade right. Now my arms, my mount." You heard that Kate, chief of the Impala people, has chosen a stand and defend tactic twice before; will he again? You know also that the Impala people are fine warriors as are all the people of the many tribes. This will be no raid of the strong on the weak, but rather a mighty clash of the **TRIBES OF CRANE** *...*

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GAME DESIGN:
Theory and Practice
Part VIII: Combat Strengths

by Nick Schuessler and Steve Jackson

Determining combat strengths for units often seems to be the most mystifying part of game design. We must quantify some very subjective values (training, morale, organization, etc.). We have to lump "apples and oranges" (a whole armor division, men, machines, and toothpaste, is simply a "10").

Despite all this, it is surprising how accurate the stronger designs are in portraying an historical event. In near-future, science-fiction, and fantasy games, simplification also satisfies our lust to know "what it would be like."

Part of the success can be attributed to the simplifications themselves. By deciding that a "10" will represent an armor division, the designer avoids dealing with a whole array of subtleties. He can then move on to the vital questions of what happens when a "10" interacts with a "5."

At another level, we have seen a shift in recent years to the "design for effect" approach. The leading proponent of "design for effect" is John Hill, of AH's *Squad Leader* system. In the past, the numbers came first and dictated the shape of the combat system. Hill decided to first determine the desired effect (or "feel"), and then work backwards to the numbers necessary. So far, this approach has worked quite well. The obvious danger is that the designer will stray so far – in the name of "effect" – that the quantification will become meaningless. These fears were aired when *Squad Leader* first appeared; but this "worst case" so far has not materialized.

The Big Bang Theory

In some ways, finding the combat strengths to put on the counters is a less formidable task than it first appears. You really don't have that many options to choose from. The normal counter mix usually has strengths ranging from 1 to 15. Dealing with values above 15 lengthens the combat resolution time as the players count and re-count. And, anyway, the strongest unit is rarely more than 15 times as strong as the weakest unit.

In assigning numbers, we can use one or a combination of three time-honored systems: aggregation, analog, or guessing. My own opinion is that the results are about the same, regardless of the system chosen. Combat strengths only have meaning in relation to the combat results table (CRT). The only "validation" possible is whether the numbers "work" on the CRT. A "wrong" result will be identified in playtest and can be adjusted.

Pretending that the strengths on the counters represent some kind of scientific objectivity is tooth-fairy talk. At best, the numbers depict an internally consistent system, the designer's view of a given situation.

Aggregation

SPI's Jim Dunnigan calls it "counting rifles," and certainly aggregation has an aura of precision. Basically, in aggregation we value each weapon in a unit, and then total the values to get the unit's new strength.

The "10" assigned to our armor division, for example, would reflect all of the rifles, machine guns, artillery, tank and anti-tank weapons, etc. in the unit. The designer would devise some kind of formula – bore x velocity, or weight of round x rate of fire, etc. – that would allow a common valuation. Then it's a matter of adding up page after page of numbers to get a sort of "throw weight" index.

Those who advocate aggregation are usually post-gunpowder devotees, which is understandable. Since the arrival of the black powdery stuff (and especially since the rifled bore), warfare has gotten a lot neater.

In the pre-gunpowder era, things were more messy, and aggregation falters a bit. When both sides have identical weapons, then we can use aggregation by counting heads. "Blue" has 20,000 troops, and "Red" has 50,000 troops. The "Blue" counter has a "2," and the "Red" counter has a "5." The problem comes in trying to value an axe opposing a bow, or a mounted soldier opposing a pikeman. We have no good formula for comparing these disparate weapons, even on a gross basis. The best solution is to count heads, and then add special rules to reflect the peculiarities of the different weapons.

Analog

Analog is a sort of fancy term for using empirical data to "rate" the units inside of the 1-15 construct. We begin by giving the weakest unit a "1" or "2" and the strongest unit a "15" or whatever our upper limit happens to be. Then the remaining units are "ranked" in between, depending on their actual performance in offensive and defensive operations.

The biggest trouble with an analog system comes in the middle. The "strongest" and "weakest" units are no problem. But agonizing over a "6" vs. a "7" can be tricky. (The aggregation designer doesn't have this problem, since he's probably already formulated basic rules out to three decimal places.) The analog

designer finally makes a subjective call based on his stomach juices. After all, it either has to be one or the other, and even a flipped coin means you're going to be right half the time.

Those who defend analog determinations will point out that it only "works" when the designer has a deep knowledge of the game's subject matter. The trivial facts and figures lost in the subconscious will help at those critical junctures, when something more than flipping a coin is needed.

Guessing

In my opinion, guessing is one of the truly useful tools that the game designer wields. Its praises and honors have for too long gone unsung.

Guessing is not the antithesis of reality; we don't *guess* that the sun will rise in the west. Nor does the guess presuppose volumes of minutiae. Rather, it's just that – a guess that one way is better than another. Again, playtesting will validate a good guess.

Defense, Defense, Defense

One of the more interesting simplifications in combat strengths is to use the offensive (throw weight) factor for defensive purposes. This little bit of double duty seems to work quite will, especially in strategic level play. Theoretically, a separate defensive factor should always be determined. There is very little correlation between an attack capability and a defensive capability. But in practice, we find that the attack factor often works well enough in this dual role.

At the tactical level, we nearly always see a discrete defense factor. Since the emphasis is on weaponry, there must be some way to show that certain items (catapults, heavy artillery) are much better at inflicting damage than receiving it.

It is always harder to calculate defensive numbers. There is simply no common denominator for making the calculation. How does an infantry foxhole compare to 100mm of tank armor? The solution usually takes one of two forms. There might be heavy layers of informed guessing to force a number onto the counter. The more recent trend is to treat defense more qualitatively, e.g., an anti-tank gun halves the armor attack strength but is useless against infantry. As usual, the qualitative solution tends to clutter up the game a bit, but gamers today seem to prefer clutter to unrealistic quantifications.

Next: Combat Resolution

TSG BACK ISSUES

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No. 17. GEV designer's intro; strategy for Chitin: I; variants for Imperium, Melee, and a combination Ogre/Rivets variant; WarpWar fiction.

No. 18. IceWar designer's intro; variant scenarios for Invasion: America and War of the Ring; additional equipment for Traveller; mounted Melee; "Referee, Declare Thyself!" (role-playing GM technique).

No. 19. POND WAR; variant units and scenarios for GEV; combining Imperium and WarpWar; Battlefleet Mars variant; reviews of Swords & Sorcery, Runequest, and Raumkrieg; MicroGame design article.

No. 20. Olympica tactics; Psionics in Traveller; TARTARS & MARTYRS; Reality in Melee; designer's optional rules for Ice War; designer's article on Starships & Spacemen; "Rip-Off Blues" (wargaming frauds).

No. 21. Interview with Dave Arneson; running a MicroGame tournament; tactics for Ogre and GEV; spaceship miniatures; Black Hole variant rules, putting the Deryni into Melee; more reviews.

No. 22. Ice War tactics; Black Hole physics; PARTY BRAWL; 1978 SF/fantasy game survey results; Fantasy Trip short story.

No. 23. Invasion of the Air Eaters designer's article; Ogre meets Ice War; Sticks & Stones expansion; Vikings and Valde in The Fantasy Trip.

No. 24. Black Hole designer's intro; "The Psychology of Wargaming"; Naval Melee; "The Four-Howitzer Defense in Ogre"; variants for Chitin: I, The Creature that Ate Sheboygan, and John Carter of Mars.

No. 25. Stellar Conquest issue . . . designer's article, tournament tactics, and variant scenarios. Also – strategy in Rivets; benefit-cost analysis for Ice War; "Everyday Life in The Fantasy Trip."

No. 26. Oneworld designer's intro; tactics in GEV; variations on Wizard; computers in wargaming; Life-sized Melee; and a variant that puts human forces into Rivets.

No. 27. Hot Spot's designer's intro; Time Travel; Nuke the Air Eaters (gaming atomic war); Weapons for Hobbits in TFT; Muskets in TFT; Game Design Part 1; 5 pages of game reviews.

No. 28. 1979 Game Survey results; Overmen in TFT; A Guide to SF/Fantasy Game Publishers; Task Force Games report; Writers' and Artists' guides; 7 pages of reviews; Game Design Part 2; Deus Ex Machina.

No. 29. Fantasy Trip designer's intro; Painting Fantasy Miniatures; Fantasy and SF game magazines surveyed; Game Design Part 3; more Deus Ex Machina; 7 pages of reviews.

No. 30. KUNG FU 2100; Painting Fantasy Miniatures Part II; Index to Game Articles; Game Design Part 4; Programmable Calculators; 10 pages of reviews.

No. 31. "Sam Beowulf"; 1980 Game Software survey; Game Design Part 5; Random Maze Generation; 9 pages of reviews.

No. 32. Traveller issue . . . Alternate Character Types, reviews of play aids, scenarios, and variants; also Game Design Part 6; Deus Ex Machina; "Minus Two Reaction;" software survey update; Yaquinto Games report; 9 pages of reviews.

No. 33. Play-by-mail issue . . . Feature reviews of four PBM games, a Warp War Campaign, Survey of PBM companies; also, Contest Report; Company Report from Schubel and Son; "End Game;" GEV scenario; Game Design Part 7; Deus Ex Machina; and 10 pages of reviews.

No. 34 Miniatures issue . . . Cardboard Heroes Designer's Notes, LOTR Miniatures, Painting Fantasy Minatures Advanced Techniques, Survey of miniatures manufacturers; also "The Challenge;" ARTIFACT Designer's Notes and Expansion Rules; 3-D Displays II; Game Design Part 8; Wish Contest winner; and 8 pages of reviews.

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Capsule Reviews

THE SPACE GAMER reviews board games, role-playing games, computer games, video games, and game supplements. We review play-by-mail games if a reviewer is enrolled. We will review any science fiction or fantasy game if the publisher supplies a copy. We do not guarantee reviews of historical wargames. TSG may publish a review of a game we are not sent – IF a reader submits a review.

The staff will make reasonable efforts to check reviews for factual accuracy, but opinions expressed by reviewers are not necessarily those of the magazine. For information on writing reviews for TSG, see "Writing Reviews for THE SPACE GAMER" further on in this section.

Games for which reviews have been assigned or received include: *Beneath Apple Manor, Campaign Series Grid Map Sheets, Cosmic Encounter, The C&S Sourcebook, D&D Character Record Sheets, D&D Monster and Treasure Assortment, Encounters in the Corelian Quadrant, 4th Dimension, It, Knights and Magick, Land of the Rising Sun, Magic Wood, Mission to Zephor, Nebula 19, Operation Pegasus, Queen of the Demonweb Pits, RuneQuest* (boxed ed.), *Skull & Crossbones, Slave Pits of the Undercity, Space and Sport Games, Starfire II, Star Fleet Battles* (boxed ed.), *Super Invasion/SpaceWar, Swords & Sorcerers, Tancred, Treasure of the Silver Dragon,* and *The War of the Worlds.*

Specific games for which we are seeking reviews include: *Cardboard Heroes, The Emerald Tablet, Knights and Knaves, Kung Fu 2100, One-Page Bulge, Raid on Iran,* and *Thieves' Guild.*

ASTEROID (GDW); $6.00. Designed by Marc Miller and Frank Chadwick. One 6" x 9" 24-page rules booklet, 120 counters, eight 6" x 9" geomorphic map sheets, 1 six-sided die, boxed. Two or more players; playing time 1-2 hours. Published 1980.

ASTEROID is a fast-moving, fun little game – space opera in the grand tradition of the early '30s. An eclectic team of adventurers is trying to enter an asteroid mining station and stop its computer brain (programmed, of course, by a mad scientist) from smashing the massive hunk of rock into the Earth. The expedition members represent all of the old SF cliche stereotypes imaginable: the staunch military leader, the ace reporter, the professor and his beautiful daughter, the sneak thief, the strong man, the guy with the incredible luck, the dedicated soldiers – even Shasha, the mining dog. The labyrinthine station is defended by its robots (what else?), which flitter along amid space opera gadgets – the disintegrator, the invisibility belt – left lying about by the now-dead mad scientist.

ASTEROID's most interesting feature lies in the individual abilities of the various expedition members: the professor can turn off the brain, tap the computer terminals for information, and repair inoperative robots with his scientific skill. Lucky McGee, the world's luckiest man, can do the same thing with a well-placed kick by expending "luck points." He is also virtually invulnerable – until his luck runs out. Ms. Jones, a psychic, can discover the identity of the station's hidden counters. Gunner and Sarge (DC comic fans, take note) are the crack shots. Nicholle, the professor's daughter, is a bit of a hindrance because sometime during the game, if she is along, one of the male members will fall in love with her, causing numerous complications. The catch is, if the professor goes, she must be taken, too. The fact that the expedition player can choose which of the characters goes on the mission will thus make for a unique situation in every game.

Though most of ASTEROID's rules are quite clear, the rule on the "to-kill" roll is a bit ambiguous. It may take a couple of readings to determine that the number listed with the character on the combat chart is the number that must be rolled on one die for that character to kill *another*, not the roll it takes to kill the character himself. The game seems a bit slanted toward the expedition player (a natural bias – the survival of the Earth is at stake), but not so much a competent brain player can't win.

ASTEROID is very playable and a lot of fun – more so than many games costing more than twice its price. Well worth the investment.

–William A. Barton

DARKOVER (Eon Products); $12.00. Based on the Darkover novels by Marion Zimmer Bradley. Boxed, with 8½" x 10½", 8-page rulebook, 10" x 18" playing board, 4 matrix screens, and 146 assorted tokens and cards. 2-4 players; playing time 1-2 hours. Published 1979.

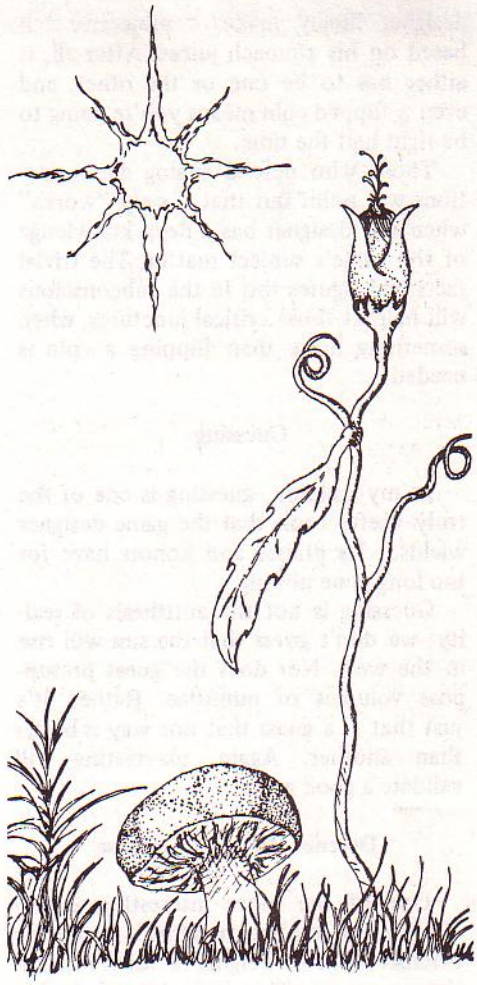
Players attempt to seize and hold the Elhalyn Tower, using their armies and psychic gifts. A player who shows negative emotion (anger, despair, greed) may be punished by the Monitor, who will remove one of his army tokens. The offender then becomes Monitor. Fire and psychic contests are resolved by chanting, the loser being the one who breaks eye contact, smiles, or laughs. When the Ghost Wind blows, each player must carry out one of several previously-chosen activities (which may be very bizarre, as long as no one is hurt) – or pay a heavy penalty.

You get the idea. This is no ordinary wargame. Those of you who must have attack and defense strength, terrain charts, and a CRT won't like this game.

DARKOVER is a good party game, better with four players than two. Its physical quality is impressive. If you enjoyed the Darkover novels, or if you enjoy unusual games, DARKOVER will be a worthwhile investment.

–Bob Von Gruenigen

DEATH AND DESTRUCTION (Uncontrollable Dungeon Master); $8.95 (plus $1 shipping). Designed by Robert Von Gruenigen. Boxed, with an 8-page 5½" x 8½" rulebook and 129 poker chips for playing pieces and board. Two or more players; playing time 30 minutes and up. Published 1980.



This is a peculiar and unique game – the first effort of a new designer starting his own company. It is much more like checkers or chess than like a standard wargame. If you can imagine a checkers game with 32 pieces to a side – where every piece has a different name and different abilities – you've got an idea of what DEATH AND DESTRUCTION is like.

It's a very interesting idea. The different values of the pieces make strategy very complex – and the pieces' names (i.e., Lust, Self-Preservation, Deadstar, Quake) add spice. The advanced game allows you to build your own board (still 64 spaces, but any shape). There is room for infinite plot and maneuver here.

Sadly, most people won't get that far. D AND D is very obviously an "amateur" effort – and some of its problems will discourage players. For instance: Setup is incredibly slow. First you have to build the *board* out of poker chips (!) – then you have to place more chips for pieces. Initial placement is vital to strategy, but will bore most gamers to tears. Then, play is slowed by the fact that the pieces are not identified by their names; each bears only an arcane code which tells how it moves and attacks. "V16A4" is all very well – but the game would be more fun (and easier) if the piece said "Blackhole," too. The rules need work; they're very confusing in places. (Was this game ever *blind*tested?) And considering the amount of money that the components obviously cost, they look pretty haphazard. Standard cardboard pieces and a paper map would have looked better AND been cheaper to produce.

If you like chess (and its complex variants), this game is worth attention, even at its rather high price. If you *don't* like chess and similar

games, D AND D will hold nothing for you. It's a fascinating effort, but its production and playtest flaws will probably keep it from going far. Pity.

–Steve Jackson

THE LEGEND OF ROBIN HOOD (OSG); $4.50. Designed by Joe Bisio. One 8-page rules folder, one 22" x 17" map, and 100 die-cut counters. Two players; playing time ½-2 hours. Published 1979.

The setting is Sherwood Forest and the surrounding area. The map is divided for area movement. The Robin Hood player attempts to recruit a band of loyal leaders, and with them, to rouse the Merry Men into action. The Sheriff of Nottingham player also has allies: the Sheriff of Lincoln and Sir Guy of Gisbourne with men-at-arms and knights. Robin tries to waylay travellers through the forest while the Sheriff's men tax the villages. Special features include the marriage of Maid Marian to Robin or Sir Guy, hanging of outlaws, the archery contest, and of course, the return of King Richard.

THE LEGEND OF ROBIN HOOD is a fairly easy game to play and moves along quickly. If Robin can survive long enough to raise his men into action the game becomes a tense battle of forest ambushes and even storming castles. The little extras add a touch of realism to the legendary game which make it extremely enjoyable.

Some of the special events are rarely used, but this is one of the few problems with the game.

For a fun, fast, and thoroughly delightful game, the price is certainly a steal. I recommend THE LEGEND OF ROBIN HOOD to all.

–Richard A. Edwards

MAATAC (Superior Models); $8.00. Written by Wayne Smith; designed and illustrated by Ron Spicer. 16-page, 5½" x 8½" rule booklet, one 8½" x 11" data table, ten 8½" x 11" engagement sheets, paper envelope. Two or more players; playing time varies. Published 1979.

MAATACs (Multi-functional Armed and Armored Tactical Attack Computers) are armored vehicles used by the five empires introduced in *Starfleet Wars.* These are rules for use with Superior Models' MAATAC miniatures. The game mechanics are simple. A die is rolled for each weapon firing to determine hits. Location and penetration are checked by die roll. Any hull or turret penetration destroys the vehicle. Mobility hits stop movement. Gun hits destroy the largest remaining weapon. That's about it. (The advanced rules expand on this somewhat.)

The basic rules of MAATAC are straightforward, easy to explain and understand, and quick. Probably anyone familiar with miniatures could just pick up the data tables and start playing. This is very good for an introductory game or for scenarios with large numbers of units.

But these same points make it nearly useless for anyone expecting the complexity of *Tractics, Panzer,* or even *Angriff.* The rules can also become boring after very few plays. The reason? While there are five empires, each with five different classes of MAATACs, they all have the same weapon systems. The vehicles in each class, while different in detail, all seem very much the same.

Anyone wanting a set of SF miniature rules incorporating armor, air, and infantry should consider MAATAC, at all times keeping in mind its simplicity.

–Alex R. Sabo

MARINE: 2002 (Yaquinto); $17.00. Designed by Michael S. Matheny. Boxed, with 24-page 8½" x 11" booklet, 300+ extra-thick ¾ and ½ inch die-cut counters, three 21" x 9" geomorphic mapboards, terrain counters, two range sticks, counter sorting tray, two operations sheets, two reference cards, one log sheet pad, and two game dice (red and white). Two to six players; playing time one or two hours (depending on scenario picked). Published 1979.

MARINE: 2002 creates the combat environment that existed on the Moon during the First Russo-American Lunar War of 1998-2002. Players command platoons of specially-trained troops and support vehicles. It is a war of lightning-quick assaults aimed at denying an area or facility to the enemy, to erode their position, and weaken their ability to remain on the moon. Warfare on the moon is fought with the most lethal weapons ever used: the sear of laser beams, the blast of neutron weapons, the hellish fury of the charged particle beam. Wounded are few because a punctured suit means instant death.

To new gamers, the rules may look quite long and complicated, but actually they're not. They are compiled for completeness, and many are optional and do not have to be used. The reference cards are used for quick, easy reference. Combat is fairly simple and the effects achieved are very realistic. As a game progresses, you get a good feeling of what it might actually be like to engage in blazing, quick-hitting, small unit combat on the surface of the moon.

MARINE: 2002 has many counters that represent all possible states of any given event. To an experienced gamer this is a plus, but for the beginner this might make combat confusing or very slow. A new player must get accustomed to play before going on to more involved scenarios.

MARINE: 2002 is one of Yaquinto's best works. The physical quality of the game is excellent, and the mechanics are very playable. It is a "complete" game, but most of all it's FUN!

–Paul Manz

MONSTERS! MONSTERS! (Flying Buffalo); $4.00. Designed by Ken St. Andre. 40-page 8½" x 11" rulebook, 8 extra pages of sample terrain, buildings, characters. Two or more players; playing time indefinite. Originally published 1976, by Metagaming.

This is a fantasy role-playing game where players operate monster characters instead of the usual adventurers. The system comes from *Tunnels & Trolls,* designed by the same person, but that game isn't necessary to play. Rules include character generation, experience, interaction, combat, magic, and referee advice. Necessarily and deliberately, there is a lot left to the referee's imagination. More so than any other FRP game, if he doesn't take charge the proceedings give way to meaningless slaughter. It is a constant challenge to provide a challenge to the monsters.

The rules are easy, illustrated with cute sketches; the game premise is delightful. The novelty may wear thin, but if thought is put into the monsters, they become as lifelike as the fighters or mages in other games.

The big glitch is combat. Each combatant rolls a number of dice, depending on monster type or weapon, adds a number for high basic characteristics. Lower roll subtracts from higher, loser absorbs that many hits. Basically . . . boring! Combat results are obvious before the fight. I recommend substitution of a different system; I've gotten playable results with *Melee.* A minor but persistent annoyance is having to add up basic characteristics when calculating experience and some magic.

MONSTERS! MONSTERS! is a good game for beginners, or anyone who wants to be a troll, but experienced gamers who enjoy complex campaign games offering more than bloodlust won't find what they want here.

–Ronald Pehr

NUCLEAR WAR (FBI); $9.00. Designed by Douglas Malewicki. Small box, 8½" x 11" rules sheet, 100 war cards, 40 population cards, spinner. Two to six players; playing time under one hour. First published 1965.

This is a very simple game about – you guessed it – nuclear war. Players draw cards for initial population; then the war cards are distributed. Players may attack "peacefully" with propaganda cards that steal enemy population, or directly by combining missile or bomber cards with warhead cards. A successful nuclear strike entitles the attacker to spin the spinner – which may increase the warhead's effect, decrease it, or eliminate it entirely. A player is eliminated when all his population is gone; the winner is the last player surviving.

Silly and fun. Its biggest advantage is that it allows players to interact, gang up, and backstab – but it's over so quickly that nobody takes the treachery too seriously. The components are nice for such a little game, and some of the "Top Secret" cards are rather witty.

But it is in no sense a serious simulation – and even as a game it is very, very simple. Other than that, the only drawback is that the "strategy" rules often lock you into a bad move a couple of turns ahead. Real life is like that – but this game isn't real life and shouldn't try to be.

This is NOT an "introductory" wargame – it's not a wargame at all. It's a card game. Recommended for a quick social game or for when everyone is too sleepy to play anything complex.

–Steve Jackson

RAMSPEED (Metagaming); $3.95. Designed by Colin Keizer. Box containing 19-page, 4" x 7" rulebook, 12" x 14" map, 52 cardboard counters, and a six-sided die. Two players; playing time 1-1½ hours. Published 1980.

RAMSPEED is labelled *MicroHistory No. 2,* a Microgame format without science fiction or fantasy elements. It simulates combat between Bronze Age galleys. The scenarios aren't actual history. Players "purchase" numbers of different types of galleys with differing armaments, using given "build points." The map is simply a blue hexgrid; movement and missile fire are measured in hexes. Sizes, speeds, and ranges of galleys and weapons are presumably in proportion to their historical counterparts. Instead of an illustrated rulebook cover, seen through a plastic baggie, RAMSPEED's box with punch-out tab for display on a rack should make it more noticeable to store customers.

RAMSPEED is tremendous fun. The ideal battle tactic – ramming – creates the cerebral equivalent of amusement park bumper cars. Ships maneuver and jockey to gain position for that crash into a vulnerable target. Rules are easy to learn, set-up doesn't take forever, and record keeping isn't onerous. The realities of galley warfare seen to be well reflected in very playable rules: ramming, shearing, catapult

fire, grappling, and boarding.

The prime annoyance is that the ship counters are bigger than the hexes, causing occasional confusion about location. A few rules are ambiguous, such as whether a catapult hit kills more than one boarding party, or if a ramming galley can grapple.

The faults don't mar the game. RAMSPEED is less complicated than most other games, but as enjoyable as any. Whether you play it as a fast Micro, or as a part of a historical or fantasy campaign, it should be well worth the time you devote to it.

–Ronald Mark Pehr

SPACE MARINES (FGU); $7.50. Designed by A. Mark Ratner. Previous edition published by Fantac. One 80-page 8½" x 11" rulebook. Number of players and playing time variable. Published 1980.

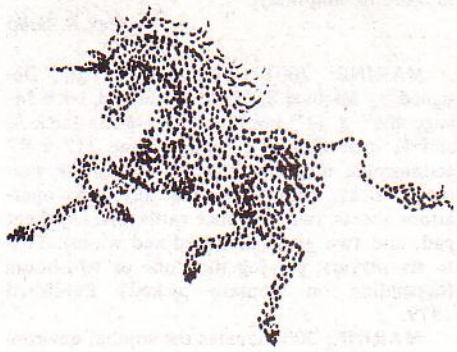
SPACE MARINES is a highly detailed rule book of ground combat tactics in the far future for use with science fiction miniatures. It is possibly one of the best such rule sets on the market. Clear and well-organized, SPACE MARINES covers almost every aspect of ground warfare imaginable – from hand-to-hand melee to long-range artillery and missile barrages – with nearly every weapon known to science fiction literature. There are even abstract rules for air-to-air and orbital combat as a function of ground support. A section on the various races and nations involved in future conflict, including a breakdown on each race's military organization and special abilities – along with miniature painting guides – rounds out the book.

A number of features makes SPACE MARINES such an outstanding rules set. Its table of contents is one: Every section of the rules – and every chart and table as well – is listed, making for easy reference in almost any situation. The section on weapons is just *made* for futuristic-weaponry freaks. Blasters, forceblades, disruptors – you name it, SPACE MARINES has it. The human and alien races involved in the conflict are rather interesting, too, if not quite original: for example, the "Bugs" straight out of *Starship Troopers*; the octopoidal Mertuns, rather like Wells' Martians; the Mekpurrs, felinoids reminiscent of Larry Niven's Kzinti. SPACE MARINES also ties in with FGU's new role-playing system, *Space Opera*, as its "battle manual," making the book of interest to role-players as well as to miniature enthusiasts.

Unfortunately, in a book so well thought through as this, the errors that do creep in are glaring. Clarifications are needed to certain rules, such as those concerning modifiers to hit with a weapon. It's only clear after some reflection that the modifiers are added or subtracted to the basic *percentage* to hit rather than the "to-hit" *roll* – especially if one is used to modifiers to the roll, as occurs elsewhere in the rules. Some information referred to in the text is completely non-existent, such as the modifiers for firing while moderately or seriously wounded in the advanced skirmish rules. SPACE MARINES shares the unfortunate tendency of so many other systems to secrete important information alluded to in the text in obscure footnotes at the bottom of the charts and tables – and nowhere else. Annoying.

Still, if detail and realism without any sacrifice of playability is what you're looking for in a SF miniatures rulebook, you won't be going wrong by adding SPACE MARINES to your collection.

–William A. Barton



SUPPLEMENTS

THE CITY STATE OF THE WORLD EMPEROR (Judges Guild); $12.00. Designed by Creighton Hippenhammer and Bob Bledsaw. D&D supplement. Contains a 22" x 34" city map, two 17" x 22" wilderness maps, two 80-page booklets, and a 48-page booklet. Published 1980.

What we have here is a big-time, industrial-grade playing aid. This is an extension of the Judges Guild series of maps which all link together. Each has various cities, characters, and phenomena described in their accompanying booklets. This is the largest, most complex one. It is not a scenario or programmed adventure, it just establishes the scenery, politics, and major NPCs in an area which referees can use for their adventures.

It does an excellent job. Unless you play all day every day, it will be a long time before your players can fully explore every facet of the CITY STATE OF THE WORLD EMPEROR (CSWE). The city map itself is larger than that of their previous *City State of the Invincible Overlord*, and my players haven't exhausted it in 4 years. The CSWE's territories have plenty of interesting terrain ruled by formidable characters.

On the negative side, many of the areas are described in only a sketchy paragraph, some of the descriptions of NPCs and their environs seem to have been drawn up at random, and there is no way to avoid the unpleasant reality that beginning referees who introduce some of the overpowering NPCs and magic artifacts that are "on the list" will either overwhelm player-characters or provide too many goodies too soon (a general fault with D&D anyhow).

CSWE does accomplish what it set out to do. It provides a relatively complete background world, with exquisite detail in places, and unending ideas for development of a referee's own world. The price is high, but you get a lot of material for it.

–Ron Pehr

DARTHANON QUEEN (Judges Guild); $3.50. Designed by Ray Harms, Michael Reagan and Dan Hauffe. Official adventure approved for *Traveller*. One 8½" x 11" 30-page book. Two or more players; playing time indefinite. Published 1980.

DARTHANON QUEEN is a well-thought-out set of three scenarios, each taking place aboard the disabled Type M subsidized merchant, *The Darthanon Queen*. The objective of the player/adventurers is to salvage the ship and rescue the passengers. Stats and descriptions are given for each crew member and passenger of the *Queen*. The deck plans and technical data of the Type M are reproduced for the adventure from *Starships & Spacecraft*. A compartment-by-compartment equipment and furnishings list is included, too. And, finally, a subsector map of the Guadix Drift in the Ley sector shows where the action of the adventure takes place.

Much of the meat of the adventures possible on the *Darthanon Queen* comes from the interaction between the pre-generated characters supplied with the adventure. It is suggested, therefore, that these be used with little or no alteration by the players. The most intriguing of the three scenarios is the first, which involves the "Dyson" – about which nothing more can be said here without spoiling much of the excitement for players and referee alike.

There are a few minor flaws in DARTHANON QUEEN. For example, though it is mentioned as a possibility for a more complex adventure, it is nearly impossible to combine all three scenarios into the "Grand Scenario" without seriously diluting the effective elements of each individual adventure – or drastically altering the given situations. Playing each separately or combining two (adding Dyson to either the sabotage or mutiny scenario works best) is more satisfying. I could wish, too, that the Matarshan Federation and the Syndymic Empire, both mentioned in the subsector information, had been more fully explained.

All in all, the high standards of Judges Guild shine through in this adventure. It can only be hoped that JG will continue to contribute to the growing family of *Traveller* products.

–William A. Barton

DEITIES & DEMIGODS (TSR); $12.00. Designed by James M. Ward with Robert J. Kuntz. For use with *Advanced D&D*. One 144-page hardcover book. Published 1980.

This book contains 16 categories of mythos for use with AD&D. This is a very detailed book; the gods' statistics are set up like the monsters in *The Monster Manual*. There is a 9-page clerical chart and a chapter on the known planes of existence.

If you like a wide variety of deities, this is for you. The gods range from Greek to Chinese to Newhon.

The problem with this book is that worshippers' alignments are too restricted. For example, in the Melnibonean mythos, there are no gods for the alignments of lawful-evil, chaotic-good, lawful-neutral, or neutral-good; the majority were chaotic-evil. What good is a godless lawful-evil cleric?

On the whole, it's worth $12. Any AD&D DM should get this book.

–Kevin Frey

ENCOUNTERS IN THE VENTURA QUADRANT (Group One); $3.50. Approved for *Traveller*. One 8½" x 11" 18-page booklet. Playing time and number of players variable. Published 1980.

The third group of Group One's starship encounter books, ENCOUNTERS IN THE VENTURA QUADRANT presents more starships and their crews for your *Traveller* campaign. This time, there are only three major ships included: the pirate corsair *Ondanto*, the transport *Webb*, and the oddly-shaped merchant *Fedora*. There *is* a fourth ship type briefly outlined, though it is not a starship – a 95-ton assault shuttle. It is covered entirely on one page, with a diagram and a brief description of its few compartments. The other ships are, as in the first two books, fully described with deck plans, compartment functions and contents, and crew biographies.

The graphics of VENTURA, at least as far as the cover, have improved over its prede-

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cessors. The detail of the ships is impressive and the descriptions of the crews are intriguing.

VENTURA is slightly marred by Group One's tendency to overlook certain details. The *Webb* has no target program for its computer, its weapons being manually fired. The three levels of the *Ondanto* are a bit difficult to fit together as drawn; the turret on level three appears to be floating unattached to one side of the deck and the turret described on level one isn't drawn in at all. Also, many of the hatch drawings fail to match those in the key on the first page, causing some confusion in identifying the exact hatch types on the ships.

Group One shows definite promise as an up-and-coming competitor in the field of *Traveller* play aids. ENCOUNTERS IN THE VENTURA QUADRANT can do nothing but add to your enjoyment in running starship encounters.

–William A. Barton

THE EVENING STAR (R. Warfield Game Design, POB 1333, Midland, TX 79702); $5.50. Designed by Robert Warfield. Scenario for *Traveller.* One 34-page 8½" x 5½" booklet and one 32" x 20" two-color map. Two or more players; playing time indefinite. Published 1979.

This book and map set is a play aid for *Traveller.* Its subject is the *Evening Star,* a reinforced and hollowed out asteroid now given over to the enjoyment and pleasures of the galactic rich. The map is an overhead view of the environs of the *Evening Star* with the various locales labelled. The booklet serves as a key to the map, elaborating on and explaining the various shops, stores, clubs, restaurants, and other points of interest. Pertinent characters for each location are given along with their UPP and skills, and perhaps some background material on the person. Listings for each place also include such information as the items available and their prices, a description of the surroundings and referee notes. In addition to map location descriptions, the booklet also gives information on clubs and organizations, the *Evening Star* legal system, and a sample scenario.

The art is very nicely executed, and the book is free of the typos, misspellings, and bad grammar that sometimes plague the smaller publishers. The information given is quite helpful.

There are really few problems with THE EVENING STAR. The scenario is somewhat limited by its nature. The designer seems to suffer from an occasional lack of imagination when it comes to naming NPCs; some names are repeated.

Despite its price, THE EVENING STAR is a fine playing aid for use with *Traveller,* and should certainly provide some good material for any referee.

–Tony Watson

SPACEFARERS GUIDE TO ALIEN MONSTERS (Phoenix Games); $8.00. Designed by Ed Lipsett. For use with science-fiction role-playing games. One 8½" x 11" 64-page book. Playing time and number of players variable. Published 1979.

If you're getting a bit weary having to face hoards of anonymous chasers, eaters, trappers, or grazers in your *Traveller* animal encounters, you may wish to examine Phoenix Games' SPACEFARERS GUIDE TO ALIEN MONSTERS. In its pages you'll find 350 different creatures, a multitude of detailed animal encounters (plants, too!) for your next science-fiction role-playing session.

Each monster is given a capsule description noting its size, speed, home planet type, weight, number of hits it can receive before unconsciousness and death, and the terrain type in which it may be encountered. Along with this information is a two-paragraph section describing the physical appearance of the beast, any special weapons or traits and whether it will be encountered in groups or alone. Some of the critters are even illustrated. Now players can meet and do battle with such exotics as the Cratosian Deathworm (takes 20d6 to stun, another 8d6 to kill), the toad-like Byrnie or Xam's Dragon. Or they can find themselves in combat with familiar dinosaurs such as the Tyrannosaurus, Triceratops, or Allosaurus. There are also four encounter charts that can be used with the book and an introduction outlining some interesting "First Empire" biological constructs, such as the star-enveloping Solar Sponge.

The only problem with SPACEFARERS GUIDE TO ALIEN MONSTERS is that the referee is going to have to do some real work to convert the various creatures into whatever SF role-playing system he is using. The only guidelines given are for using the hit information with *Traveller* and *Space Patrol.* Those using other systems are on their own. The other beastly parameters cited must be converted almost from scratch.

If, however, you don't mind the work involved – or your imagination's running a bit dry this week – SPACEFARERS GUIDE TO ALIEN MONSTERS could easily prove to be a fruitful addition to your SF role-playing campaign.

–William A. Barton

TWILIGHT'S PEAK, *Traveller* Adventure 3 (For Referees Only) (GDW); $4.98. Designed by Marc W. Miller. One 9" x 6" 64-page booklet. Two or more players; playing time indefinite. Published 1980.

TWILIGHT'S PEAK is GDW's most ambitious *Traveller* adventure to date. Whereas previous adventures have taken place on one world – or on several worlds of one subsector – the action of TWILIGHT'S PEAK spans more than 30 worlds across four subsectors of the Spinward Marches (an area known as the Spinward Main) before concentrating on the one planet where the adventurers may learn the secret of the lost drug convoy of Twilight's Peak, as well as solve the mystery of the long-dead Ancients. Included with TWILIGHT'S PEAK are character-generation tables for creating alien characters from one of the six major races of the Imperium – the Droyne.

Twenty pages longer than any previous adventure, TWILIGHT'S PEAK is a campaign in itself, replete with planetary rumors, library data, planetary maps and event tables, animal encounter charts, floor plans of the various structures and installations the players may stumble upon, a computer synopsis of the epic of *Twilight's Peak* and enough plot twists and surprises to rival even the most rip-roaring space operas of the Golden Days of SF. As exciting an adventure as it is, however, TWILIGHT'S PEAK's most notable feature is its unique generation system for Droyne characters. Unlike other aliens possible in *Traveller* (the Vargr, for example), Droyne are rolled up with only one die per characteristic, making them physically weaker than other races. This is countered, however, by various special racial abilities, such as unarmed combat, flying and the psionic-oriented sense characteristic (which replaces education in human characters). Rather than having a social standing, Droyne are assigned a caste, ranging from worker to warrior to leader, to which they are confined for life.

If there are any serious flaws to be found in TWILIGHT'S PEAK, this reviewer was unable to locate them. It is the best adventure thus far created for *Traveller.* Don't pass this one up – not even for a cargo hold of advanced powered battle armor.

–William A. Barton

PLAY AIDS

STAR TREK MAPS (Bantam Books); $8.95. Designed and coordinated by Jeffrey Maynard. Four four-color wall maps and 32-page technical manual. Published 1980.

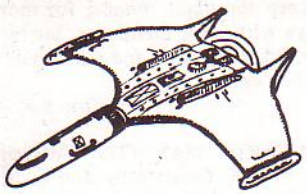
For all those Trekkies, semi-Trekkies, and SF role-players who crave visual aids in their games, Bantam Books has released the STAR TREK MAPS, a set of four beautifuly produced visual guides to the Star Trek universe. The maps themselves are stunning: several colorful views of the areas within the boundaries of the United Federation of Planets and some of the neighboring star empires such as the Klingons and Romulans. Special attention is given the quadrant of Federation space which was patrolled by the *U.S.S. Enterprise* on its five-year voyage "to boldly go where no man has gone before." The accompanying tech manual contains sections on warp drive speeds, coordinate geometry, celestrial navigation, deep space operations and an appendix of data on the various star systems plotted on the astrological maps, along with other items of interest to Star Fleet buffs.

Aside from their mere graphic appeal, these maps should be welcomed with pleasure by all those Star Trek fans who have wondered exactly where the many planets and celestrial phenomena encountered by the *Enterprise* were located in the galaxy. All the star systems mentioned in the series (including the animated cartoon series) and stories are to be found on the maps: Talos, Orion, Omega, Triskelion, Gothos, Janus, Tantalus, and many more. The paths of such vessels and probes as Nomad, the *Botany Bay,* and, of course, the *Enterprise* herself are charted as well. Areas such as the Romulan Neutral Zone, the Tholian Assembly, the area of contact with the Klingon Empire and the extent of the Kzinti Patriarchy (grafted from Larry Niven's "Known Space" series) are marked, too. And, in a tribute to Star Trek's SF roots, the diligent star searcher can locate Ringworld, Riverworld, Pern, Mote Prime, and Barsoom along with orbs named Ellison, Asimov, Clarke's Star, and – what else? – Roddenberry.

The only real fault I find with the set is that the cover sleeve shouts out "Four deluxe wall maps suitable for framing . . ." but fails to mention that the four big maps are *backprinted.* In other words, you either settle for only two maps to hang or you buy two sets of maps. I wish a little more effort could have been put into the accompanying tech manual, too. Next to the maps, its black-and-white-on-cheap-paper appearance simply pales.

In spite of such flaws, the Star Trek fans of Earth owe a vote of thanks to designer Jeffrey Maynard and to Bantam for taking the time to produce and release these STAR TREK MAPS. They should prove a worthwhile purchase to anyone interested in the Star Trek universe – and especially as a play aid to those SF role players who long to follow in the path of the crew of the starship *Enterprise.*

–William A. Barton



Carlos Gonzales

COMPUTER GAMES

AIR TRAFFIC CONTROLLER (Creative Computing); $9.95. Cassette with programs for the 4K Sol-20, the 16K TRS-80, the 16K Apple II (or Apple II Plus), and the 8K Sorcerer. One player, playing time depends on level of difficulty. Published 1979.

This game challenges the player to direct air traffic in a particular area. There are a number of commands which allow the player to direct the altitude, direction, and status of the aircraft. There are 26 planes which enter during the game. They will land or take off from one of the two airports, or just fly through the area. Players must make sure that no plane runs out of fuel. The game ends when either all planes are successfully directed or when an accident occurs.

The game is written in machine language for speed, has a nicely done grid which represents the area, and is in realtime.

Unquestionably worth $9.95. I highly recommend this to anyone with the computer to run it.

–Alan Isabelle

COSMIC PATROL (Instant Software); $14.95 (+ $1 postage). Cassette for the TRS-80 16K. Two levels of difficulty. One player; playing time 5 minutes. Cannot be saved. Good typing dexterity required. Published 1980.

In the control seat of your one-man Terran fighter you go out to destroy invading Quelons. As the enemy moves across the bow, you line him up in the cross hairs. Only 999 energy units left to do the job, and everything done costs energy.

This machine language game has excellent graphics and sound. The slow transports need just a touch of lead to blow them away. The Quelon fighters are tough to hit, move fast, and look great. The "beep" of your radar alarm and the crackle and sizzle of combat are nicely done.

The game's only real flaw is that, once you get a feel for how much lead each target requires, even the harder (which just means faster) version is a turkey shoot.

If you're really into video arcade, this is a good shoot-em-up. But it's doubtful you'd spend $16 to master this at an arcade.

–Jon Mishcon

GLOBAL WAR (Muse); $24.95. Applesoft disk by Alan M. Boyd, 48K. 2-9 players; playing time varies. Can be saved. Published 1979.

This program is very similar to the board game *Risk*. The graphics are spectacular, making full use of the Apple's high resolution capability.

There is not much realism. Production is super-simple. The only weapons are armies. The movement system is ridiculous. Also, the game can drag; I have never finished a game.

This game has attractive features, but is not worth $25.

–Alan Isabelle

LOST DUTCHMAN'S GOLD (The Software Exchange); $9.95. Cassette by Teri Li for the TRS-80, 16K. One level of difficulty. One player. playing time indefinite. Published 1979.

Gather your gear and map. Catch that blasted mule. Tromp off through the desert in search of hidden gold. Simple two word commands allow you to go and do most things. Clues and traps lurk everywhere. This adventure is big enough to really take some time.

As a member of the genre of solve-the-puzzle games, this is fairly good. The video display keeps your current environment at the top with your last commands at the bottom. Using the computer as a "ghostly guide" is a clever way to nudge the player in the proper directions.

The only problem with this adventure is that many of the clues and traps seem random. That is, you move or overcome an obstacle and BINGO, there is a valuable clue or horrible trap. In small amounts this kind of randomness helps keep players "honest." In wholesale doses, it's kinda tiring.

Overall, a good game of the adventure genre, well worth its reasonable price, but certainly not the best of its class.

–Jon Mishcon

OUTLAW (Atari Games); $19.95. Cartridge of 16 games for the Atari Home Video Computer. Comes with cartridge and instruction booklet. For one or two players; playing time 1-15 minutes. Published 1978.

A player takes the role of a gunfighter, heads out onto the plain for a shootout with another gunfighter or sharpens his skills with target practice. The game has good graphics and sound. You really hear the boots, gunfire, and ricochets. Blocking your gunfire are cacti, stagecoaches, and maybe a wall. One feature, "Blow Away," allows you to shoot away the cactus, stagecoaches and even the wall.

There are very few complaints with the game. How many people do you know that sit down when they are killed? Also, the gun is hard to see. New players will probably have trouble, but after two or three games it will be easy.

The game is fun, and if you have the computer, you should get it. Recommended.

–Eric Thompson

RESCUE AT RIGEL (Automated Simulations); $29.95. Disk by Jon Freeman and Michael Farren for the Apple II, 48K. One player; playing time 20-60 minutes. Published 1980.

RESCUE AT RIGEL is a space-opera role-playing game. You play Sudden Smith, interstellar good guy, who has volunteered to attempt a rescue of 10 humans being held by a group of aliens, the Tollah (of which there are two castes: the Common Tollah, and the High Tollah). The location is a base carved out of the guts of an asteroid. You are beamed in, armed with a powergun, shield, blaster, transporter unit, and a bionic enhancer which can temporarily turn you into the Six Million Dollar Man. Besides the Common and High Tollah, you must face the bothersome Thornet, the ferocious Cerebanth, the ever-alert Sentry Robots, and the slow but deadly Plasmoid. You must locate each of the hostages, scattered among the sixty-room, six-level complex, and beam them back up to the rescue ship – and you must do it all in less than one hour. In other words, you've got your work cut out for you.

I give RESCUE AT RIGEL very high marks. The game is well thought out and has a solidly developed science fiction background, well documented in the accompanying manual. It has good flow, multiple options at each point, and keeps you moving. The graphics and command input are excellent; I especially like the transporter beam effect. And, miracle of miracles, you don't always have to kill the aliens. One command lets you try to convince them that you really belong there (and thus walk casually through the room), while another allows you to dodge fire as you dash from doorway to doorway.

I found very few weak points in this game. I'm not always happy with the scoring (time counts as well as the number of prisoners rescued), but that just may be because I haven't scored too high lately. Plus, as is true of many games, playing it too much causes interest to decline. Take it out once a week or so and try to beat your old high score.

Recommendation: if you've got the money and the interest, buy it. In fact, if you've only got either the money or the interest, buy it – you'll be glad you did.

–Bruce F. Webster

STARBASE HYPERION (Quality Software); $17.95. Cassette program by Don Ursem for 16K Sorcerer. A complete instruction manual and separate "Battle Manual" are included with the cassette. One player; playing time 15-90 minutes. Published 1980.

This is a strategic space game which requires you, as the starbase commander, to defend the base against invasion forces of an alien empire. Your decisions allocate the deployment of your fleet, probe range, shield density, power banks, and reserves. You control space-faring squadrons as well as ground defenses. Written in BASIC, the impressive graphic routines are in

EMPYREAN CHALLENGE

EMPYREAN . . . is defined as "the highest heavens". Control of a star cluster comprising 100 solar systems and 500 planets is the goal of this 150-player hidden-movement strategic science fiction game. For free details, send SASE to SUPERIOR SIMULATIONS, 524 Franklin Park Circle, Dept. SG1, Boise, ID 83709.

Z-80.

The display speed, excellent graphics, and challenging complexity of this game make it very addictive. There is the option to replay the same scenario, or play an indefinite number of different versions. This is NOT a single scenario game. Once you manage to begin winning some of these scenarios, you'll find efficiency ratings of your performance. Winning efficiently is very tough!

Occasional problems include: 1) overlong "counter" on captured enemy deployment display, 2) incorrect erasures on friendly fleet display, and 3) alien ships not erased from display when destroyed by ground defense. Each of these are very minor programming "glitches" and do not significantly affect play.

This is an excellent computer simulation game. The full graphics and real-time combat displays make the game visually intriguing as well as intellectually challenging. If you're looking for a game with challenging play instead of complex rules and you own a Sorcerer computer, this game is a must.

–Tom M. Buchanan

THREE MILE ISLAND (Muse Software); $39.95. Disk for the Apple II, 48K. One player; playing time ½-4 hours and up. Can be saved. Published 1979.

THREE MILE ISLAND is an engrossing and nerve-wracking game. It starts out innocently enough, lulling you into a sense of complacency, almost boring you by the lack of challenge. Then, just when you're about to turn it off, critical components fail simultaneously, and within minutes, you are madly flashing back and forth between displays, trying desperately to keep the reactor core cool and power going out, groaning as an invidious "beep" signals another failed component. Sweat starts dripping down your forehead, and you find yourself snapping at or just ignoring anyone who tries to get your attention. You rapidly turn pumps and valves off and on, flush out filters, and shut down turbines, causing (but not caring about) brownouts and even blackouts. And all the time, the core temperature creeps steadily upward, slowly approaching that worst of all outcomes: meltdown!

THREE MILE ISLAND is a good example of a good simulation that is also a good game. The program is constantly running, whether or not you are issuing any commands, and the time factor adds a sense of realism and pressure that is often lacking from other games. The graphical displays are well laid out and well-executed, with color coding providing important information (and also making a color monitor a necessity). You truly come to feel that this *is* a nuclear power plant at work, and that your actions are crucial.

The only real weak point in THREE MILE ISLAND is the documentation. It is laid out more in the form of a reference manual than a user's guide, and the critical information you need to run the plant effectively is hard to dig out. In fact, there does not exist a complete drawing of how the plant is put together (you must piece this out from the displays) or a simple, clear explanation of how the whole thing works and what you must do to keep it running. I consider this a regrettable deficiency, but it is generally outweighed by the overall excellence of the program.

THREE MILE ISLAND is not a cheap piece of software, in any sense of the term. But for those of you with the interest and the money, I can recommend it to you without reservations. Oh, yes, one last thing . . . if any of you keep the plant running for more than three days without a meltdown, let me know how you did it. My wife and kids would like to see me smile again.

–Bruce F. Webster

WESTWARD 1847 (The Software Exchange); $14.95. Cassette by Jon C. Sherman for the TRS-80, 16K. Five levels of difficulty. One player; playing time 20 minutes. Can't be saved. Good typing dexterity required. Published 1979.

After picking level of difficulty, you spend as much of your $700 as you dare to buy an oxen team, food, ammo, clothing, and miscellaneous supplies. Over the next 40 weeks (two week turns) you encounter all sorts of hardships as you try to get to Oregon before winter sets in. Tough choices abound. You face banditis, illness, and possible starvation. A fast gun is simulated by your ability to type a randomly chosen word quickly. Make it to Oregon and you have a brand new life. Those that don't make it get buried.

The best thing about this game is the decisions that must be made. How much to spend before you leave and how much to save to spend along the trail? Do you drive as far and as fast as possible or do you cautiously pick your way? Each option has its own blessings and penalties. Excellent graphics show your wagon broken or burning, perhaps lost in the mountains or pelted by an early snow.

The only possible flaw in this game is that, if the random factor weighs heavily against you, death is almost inevitable (but a case can be made for this as a reflection of the reality on the trail in 1847).

I recommend this game.

–Jon Mishcon

AT LAST — a directory and identification manual of starships that actually exist.

Issued as restricted by Terran Galactic intelligence, section #1 contains detailed drawings of supergalactic dreadnauts, biological units and attack craft with text detailing speed, crew, armament, propulsion, and sensors — plus power units and factors for Superior Models newest starship releases. STARFLEET WARS® gaming fans will want to hurry and get their copy. Posession of this manual gives the player an advantage of an additional die roll percentage table.

Future sections will contain data on attack carriers, destroyers, space stations, transports, etc.

Superior Models Inc
CLAYMONT, DE

STARFLEET WARS

A realistic but relatively simple space game with beginners as well as advanced rules. Comes with rule book, play sheets, reference table chart, and dice, plus 5 cast metal space ships.

ASK YOUR DEALER
ANOTHER SUPERIOR PRODUCT

MINIATURES

DRAGONSLAYERS (Martian Metals); $3.95 per set. Designed by George Freeman and Scott Penn. 12-20 15 mm lead miniatures per set. Released 1980.

These new figures are the answer to *someone's* dream.

Each of the twelve sets contains 12-20 detailed and well-cast little fellows, all in moderately believable and usable positions. But, best of all, no figure is repeated more than twice per set. *Tres bien!* So, for a reasonable price, you can have a veritable army of men, elves, dwarves, wizards, gargoyles, goblins, and assorted small fry.

Now the bad news. 15 mm figures are too small for many FRP gamers, and the *lack* of repetition makes them less useful for fantasy army wargaming.

But, if you use 15 mm scale for your FRPG, these figures are for you.

–Kerry Gaber

MAATAC Miniatures (Superior Models, Inc.); $4.50 to $7.00 for packs of 2 to 4. 1:285 scale science fiction tank/robot models. Designed for use with the MAATAC miniature rules. Distributed by Alnavco. Designed 1979.

This is a large line of miniatures. The assortment includes tanks and robots for five different galactic races; there are six different types for each race, ranging from large "Heavy Galactic War Machines" to small robots. Although the scale is stated to be 1:285, it looks bigger. Even the small robots, in 1:285, are much bigger than men.

Care and imagination went into these designs. They all look like war machines (or, at least, like they *could* be war machines) . . . but some of them seem very alien indeed. The sculptors did not give into the temptation to put useless fins on a Sherman tank and call it "alien." These are believable little units, for the most part.

Casting on the MAATAC samples we've seen isn't quite as good as on the *Starfleet Wars* miniatures; there's a little flash to be disposed of, and some of the turrets fit badly. The too-tight ones can be fixed; the too-loose ones are a bigger problem.

If you want alien-looking tanks, these are the best available.

–Steve Jackson

HISTORICAL GAMES

ENGAGE & DESTROY (Chaosium); $7.95. Designed by Chris Kurzadkowski. One 8½" x 11" 48-page rulebook, 8 pages of heavy stock charts. Number of players and playing time variable. Published 1980.

ENGAGE & DESTROY is a set of rules for HO and micro contemporary miniatures. Additional information is provided on painting and converting vehicles, morale levels of various nations, and using miniature play as a part of a strategic campaign. The play sequence requires plotting of movement and fires, and the rules recommend that an umpire be used for the close calls.

Kurzadkowski has amassed an impressive wealth of contemporary technical data in developing this rulebook – ranges, rates of fire, armor thickness, and slope, etc. As a reference work on modern are gaming, E&D is passable; as a set of working rules, E&D has several serious flaws.

The presentation in the text tends to mix running commentary on hull-down positions and combat formations with the "you may do this but not that" grist. Searching for the answer to specific questions requires an inordinate amount of wading.

The technical data, so lovingly compiled, is used in an undigested form. "Proving ground" numbers are idealized and must be "dumbed down" to realistic levels. Instead, Kurzadkowski gives us the "book solution": a 75% hit probability (too high), a 1-10% gunner error (too low), and a generally exaggerated lethality. And for all the emphasis on data, there are some curious lapses in accuracy. The speed for foot soldiers is set at 10-15 mph, or one mile every 4-6 minutes – in combat dress even. The "base" range for the M-1 Garand (the range for a 75% hit probability) is 600 meters, but qualification tests on Army ranges only present targets at 350 meters (and that was a long way away).

For some time, the physical quality of miniatures has not been matched by quality rules for gaming with miniatures. Sadly, ENGAGE & DESTROY does nothing to reverse this trend. The technical data might be of interest to a hard-core contemporary type, or a neophyte who is interested in getting into the era. But the price, the poor organization, and the errors call for a "not recommended."

–Nick Schuessler

PUBLICATIONS

THE COURIER (The Courier Publishing Co., POB 1878, Brockton, Mass. 02403); $9/year (six issues). Editor Richard L. Bryant. 48-page 8½" x 11" magazine. First published 1979.

Times are rough for the historical miniatures gamer. From his viewpoint, cardboard counters are spreading like a plague. Worse, the lead-mongers are cutting back on their historical lines in favor if the fast-selling fantasy figures. Sigh. Well, if he can't find an opponent with a few hundred 25mm figures in Serbian uniforms, he can always spend a pleasant evening reading THE COURIER.

This prozine lives up to its subtitle, "North America's Foremost Miniature Gaming Magazine." The miniature reviews are very sophisticated. The historical features are full of helpful data, and the scenarios published must be delightful for the people who own the figures. "The Courier Dispatch" includes news on clubs, conventions, publications, and other matters. Bryant has been quite successful in recruiting knowledgeable contributing editors and in finding advertisers (which means a lot of pages at a reasonable price).

A historical miniatures gamer who does not subscribe to THE COURIER just isn't with it.

–Forrest Johnson

WRITING REVIEWS FOR THE SPACE GAMER

Capsule Reviews

Most of the reviews we print will be "capsule" reviews – 400 words or less. We pay $5 for each capsule review accepted. We want to run a review for EVERY new sf or fantasy game or supplement. During 1980, we'll also accept reviews of older games.

Each capsule review should be five paragraphs long, and contain:

(1) Basic information. Present these facts, in this order: Name of the game; publisher; price; designer. (If applicable: "supplement to ———," "companion to ———," or similar note.) Format: list of components, with sizes of maps and rulebooks, number of counters, etc. Number of players; playing time; publication date.

(2) General description of the game: background, the sides, course of play, special features, etc.

(3) Strong points. Discuss what is good about the game; in every game; there IS something worthwhile. Don't try to be Pollyanna – just point out the game's successes.

(4) Weak points. Every game has its problems, too. If the only faults you can find are minor ones, say so. If the game is fatally flawed, come right out and SAY SO. If you can phrase your criticisms as suggestions for improvement, do so.

(5) Summation: your overall opinion of the game. Who should and should not buy it, and why.

All reviews must be signed; the reviewer's name WILL be printed. No game may be reviewed by its designer or by an employee of the publisher. (Designer's articles are welcome, but must be billed as such!) Final note: If you can write a complete review in less than the full 400 words, by all means do so.

This review format is designed to encourage fairness and to give the reader enough information to let him decide whether he wants to buy that game. Keep that in mind when you write. This is a short review, NOT a complete analysis. For those who want to write longer reviews, each issue will have one or two –

Featured Reviews

These will be game reviews 1,000 to 2,000 words long. They should contain *all the above information*, plus whatever else the reviewer wants to say. They may be written in any format. A featured review may cover either a new game or one that has been on the market for some time. If TSG has not already published a capsule review, write one, separately, and submit it at the same time. We may even use both.

Wish Contest Results

Issue 31 posed the challenge: What would you do if you had three wishes? Categories for wishing were unselfish good, total evil, and absolute self-interest. We got a number of good responses. Entries were judged on ingenuity, apparent effectiveness, and degree of overlap. For instance, a selfish wish that "everyone would do what I want" would make a second wish that "I have all the money I want" quite pointless. Wishes with a high degree of overlap were disqualified. Also ruled out were those wishes likely to be twisted to another meaning.

The best TOTAL EVIL wishes were those submitted by Ned Scott Wingreen:

1. I wish that an advanced alien race would land on earth and give every person a ticket to a paradise world without disease, pollution, or suffering.

2. I wish that the aliens would be proved incapable of telling lies.

3. I wish that it took 10 tickets to get in.

Now *that* would be chaos, no doubt about it.

Many more comprehensive disasters were offered, but most of them would have brought life on earth to an end entirely too quickly to cause much suffering!

The best ABSOLUTELY SELFISH wishes were judged those of Joseph Zaepfel:

1. I wish that I had the power to transmute elements at will.

2. I wish that I had the power to transform matter to energy at will.

3. I wish that I had the power to gain knowledge instantaneously.

As he noted, "This would solve many problems I might encounter in conquering the world." Several others wished along similar lines, but none so comprehensively.

The best ABSOLUTE GOOD wishes were submitted by Ed Simons:

1. I wish for eternal, healthful youth.

2. I wish for total personal peace and contentment.

3. Without negating, reducing, or altering the effects of my first two wishes, may I become the most miserable being in existence.

That appears to cover it . . .

Honorable mention "absolute good" wishes were submitted by Ian Delaney. We should be so lucky . . .

1. Any wargame publisher who releases an FRP that doesn't make 100% sense is to be placed in a time loop until the game does make sense.

2. A gold to lead spell to flood the market with high quality, cheap gaming miniatures. (Maybe he meant lead to gold? Who knows?)

3. Amorphous dice, that can be anything from a 4-sided to a 100-sided die, to replace all the expensive polyhedral dice on the market.

CONTEST

For all the s-f epics whose heroes have battled their way across the universe, there have been very few new weapons invented. Oh, sure, lots of "death rays," and super-ultra-giant-sized-missiles . . . but very few original personal devices of destruction. A few come to mind: Larry Niven's "variable sword" and his multi-purpose soft weapon. The old stand-by "vibroblade" or force knife (the light saber is only a giant sized version of the vibroblade). The needle-gun or gauss rifle that shoots noiseless projectiles with a magnetic field. Dickson's "dial-a-gun" – the "soft weapon" done with believable science. The "alter-mace" that Asprin's Tzen warriors carried. There are more – but the list is still short.

This month's contest: invent a weapon. It should be a PERSONAL device – that is, hand-held. No magic. It may involve new and unknown laws of nature – but you should make some effort to EXPLAIN those laws. An illustration is not necessary, but may help.

Entries will be judged on cleverness, originality, and believability. MASS destruction is not important: a clever substitute for a bow and arrow might be just as good as a city-leveling handgun.

You may enter as many times as you like. Send your entries to:

WEAPON CONTEST
c/o The Space Gamer
P.O. Box 18805
Austin, TX 78760

* * *

All entries become the property of TSG. The winning entry will receive a 12-issue subscription to TSG; the runner-up will receive 6 issues. Exceptionally good "honorable mentions" may be printed if space allows. We reserve the right to award no prizes of no entries of publishable quality are received. Entries must be postmarked no later than December 30, 1980.

'*RuneQuest* is the most playable and elegant fantasy role-playing [game] designed to date.' —ARES MAGAZINE. '*RuneQuest* is for those who want a fast-playing active game and who don't mind developing social systems and cultures for their world. I highly recommend *RuneQuest* for those who want an introduction to role-playing, or those who desire a refreshing change.' —FANTASTIC SCIENCE FICTION. 'All these roles are presented with explanations of *the reason why* each rule is present, as well as an ongoing story that illustrates both the application of the rules and the flow of the game. No other ruleset shows quite so well how the game is to be *played*.' —ISAAC ASIMOV'S SCIENCE FICTION MAGAZINE. 'A lot of thought has gone into this game. It shows. It is playable yet realistic. You don't need several supplement books to play it. Even though it was designed to fit one particular world, it could easily be used for any world. Since this game contains a logical system, almost anything can be added to the matrix it presents. A gem of a game. You won't be disappointed.' —THE SPACE GAMER MAGAZINE. 'Aha! Finally, a book a beginner can read and understand. This book is superb. It tells you what a fantasy role-playing game is, how to create an adventurer, spells out the mechanics of playing, tells much about magic—and lots more. Interlaced throughout the book are the sagas of Rurik the Restless [and] Ariella the Priestess...specific examples of how the game might occur as it is played. Beautiful!' —The Dragon, in RECREATIONAL COMPUTING.

T.M. applied for

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Okay, you got a good game there. But since I know that the RuneQuest book sells for $11.95, and since I also know that you really only need the Book, why should I buy Boxed RuneQuest? —Because you'll need the box to hold everything else you get, like the reset and revised APPLE LANE dual scenarios, the new BASIC ROLE-PLAYING (a fast intro to RuneQuest and FRP), another new book, FANGS (a starter set of pre-rolled monsters and NPCs), character and monster sheets, SIX POLYHEDRAL DICE, and other surprises. Since Apple Lane alone retails for $4.95, you probably won't mind getting all the rest for about $3 more than the RQ/AL price. But whether Book or Box, you'll have RuneQuest—the best deal of all!

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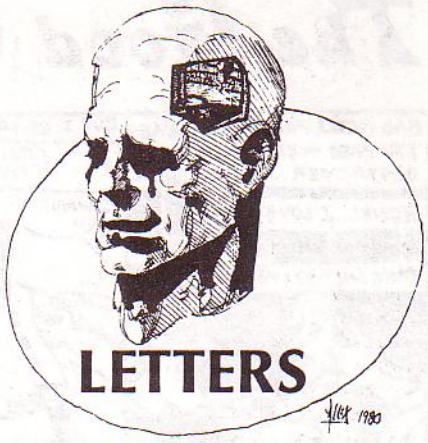


When you decided to review all the new games in the SF/Fantasy field, I expected a lot of reviews crammed into the first few issues. But as the backlog diminished and there was more space, I hoped there would be more featured and fewer capsule reviews. I don't grab my latest TSG from the postman's hands and run to the gamestore with my checkbook, buying every new game rated better than "not bad, considering . . .". When I do decide to buy a game, I turn to my stack of TSGs and look up the review. A capsule just doesn't say enough. Reviews should include illustrations of maps and tables, if possible, and samples of play. It would be helpful to give the addresses of obscure new companies (those not covered in previous surveys).

Your articles are generally good, but should include more game variants, rules, and especially strategy articles. The column on game design is excellent, and has been getting better every issue. How about one issue on recognizing (and even correcting) game design flaws?

The fiction has run from good to bad. I particularly liked "Distraction Tactic" in issue 28. I don't think fantasy in general is well-suited to such a very-short story format. Perhaps you could serialize a novel, or run a connected series of short stories by the same author.

My favorite feature of TSG is the variety of advertising. It helps me keep up on what's going on in the gaming world. Continue the company reports and news columns, and please cut down the number of TSG ads you run, one is enough! They just take up room, and anyone reading them (who isn't already a subscriber) will choose to subscribe or not by the quality of that issue, not the number of ads.

I read Excalibre's letter in no. 32, and would like to know; what did I ever do to them? I read the review of *Adventures in Fantasy,* which I'd never heard of before (score one for your reviews), and considered buying it, but now I am unsure. Why don't they submit some designer's notes, telling us its good points and how Ronald Pehr was unfair? What about advertisements on its quality? Who are they punishing with this silent treatment, you, themselves, or the subscribers?

I've given a lot of my opinions in this letter, and I hope to see the quality continue to increase in future issues.

David Holzer
Phoenix, AZ

Thank you very much for the nice review. As a result, I have changed the "Unfit for Service," hopefully, to rectify the omissions Mr. Barton noted. Again, thank you!

Donald P. Rapp
Paranoia Press

P.S. Those who have mail-ordered *Scouts and Assassins* from us directly will receive an updated "Unfit for Service" section at no charge! Our way of thanking them for their support!

READER ADS

Reader ads are available to individuals (not to companies). $5 per insertion; limit 20 words or four lines.

Free fantasy & gaming newsletter in planning. Contributors welcome. SASE. Jo Dasi, c/o Apt. 3D, 333 E. 66 St., New York, NY 10021.

Judging from TSG no. 32, Steve Jackson has finally taken the step many knowledgeable observers had anticipated, the forming of his own independent game company. Steve has long ago proven his talent at his trade, and as one who has enjoyed his creations and occasionally met with the man himself in Austin, I extend my best wishes for his success.

However, I unfortunately cannot say the same concerning the fate of his soon-to-be-released game dealing with the failed rescue operation in Iran, *Raid on Iran.* Though I knew many designers had surely been tinkering with such a game since last April, I had guardedly hoped no reputable company would stoop to publishing one. Granted, the subject has historical interest and intriguing game possibilities, but to my mind the entire project can easily be labeled a tacky and unethical attempt to make a quick buck while the impact of the tragedy is still fresh. I do not claim this to be Steve's reason for publishing *Raid on Iran,* but it can certainly be mistaken for such, and I will not be surprised to hear of some reviewer saying so.

Quite apart from this is the fact that the abortive mission is still a recent memory to many in this country and no doubt a still-painful wound to those close to the dead servicemen (not to mention the families of the hostages). Let us not also forget that 52 prisoners remain shut away in Iran and that this situation could also end in tragedy at any time. The day may come for this game to be released, but that day is not now, not while the crisis is still on-going. I am dismayed that Steve would exhibit the poor taste inherent in *Raid on Iran.*

(Incidentally, and writing as a game designer myself, I am curious as to what reference material Steve used in compiling ROI. Surely much information on troop strength and armament, planned strategy and tactics, and the various defense forces likely to be encountered within Teheran is still classified, and so presumably Steve has based some sections of his design on second-hand or incomplete sources.)

Kevin Hendryx
Lake Geneva, WI

ALL war is tragedy . . . while some wars may be better than others, I'm not setting myself up as the arbiter. As to the game itself, I don't feel it's exploitative, and I DO feel it's surprisingly accurate. I expected it to be merely an approximation, with the right "feel" but hazy details. When it was finished, I was pleased. It's better than that. You may disagree, of course – but please look at the game before you render judgment!

–SJ

In regard to your review of Judges Guild's *City of Lei Tabor,* I am afraid you have done the Guild a (probably unwitting) disservice. Your review states: "There are four maps, none of which appear to relate to the usual map of Glorantha." While this statement is true, it is not fair to Judges Guild as they apparently do NOT have the right to do any Gloranthan *RuneQuest* material. In *Wyrm's Footnotes,* 7 on page 3, Greg Stafford states: "Judges Guild and Chaosium have completed contract negotiations to allow them to manufacture play aids and scenario packs for *RuneQuest.* I have not allowed them to use my Glorantha as a base for their RQ, but it is no secret that most campaigns do not restrict them to my tiny world!"

Randall S. Stukey
San Antonio, TX

I want to voice my disagreement with Mr. Pehr on his review of *High Fantasy.*

There are many role-playing games out on the market. The successful ones are from two categories. Those which are landmarks (the original D&D and *Traveller* being examples) and those which took ideas from previous systems and formed a *better* game (AD&D, TFT, and *Space Opera,* for example). The other games are those which fail. These are games which build on old ground and attempt to do everything differently. *High Fantasy* is NOT one of those games.

Mr. Pehr says that the monsters are taken directly out of the *AD&D Monster Manual.* This may be true, but it is building upon firmly trodden terrain. The author, who I managed to talk with for a few minutes, felt that "If I can't do better, why try?" I think this is a good philosophy. *High Fantasy* was not designed to be a beginner's game. *Tunnels and Trolls* wasn't either. Both have used a precedent system and built upon it. *High Fantasy* is the role-playing game that hits the balance between T&T and AD&D, just as *RuneQuest* fulfilled the balance between C&S and AD&D.

All that I am trying to say is, *High Fantasy* has its place on every FRP gamer's shelf; regardless of its faults, it is superior in that it builds new ideas into a tiring system. Check into the combat table, if you do not believe me. It's like taking a breath of fresh air.

Rereading this letter, I know it sounds as if I have something against Mr. Pehr. Let me assure you, I don't. In fact I use Mr. Pehr's reviews in buying most of the games which I am unfamiliar with (had I only read the review of *Adventures in Fantasy* three months sooner!). I just felt that Mr. Pehr is wrong in his assumptions about *High Fantasy.*

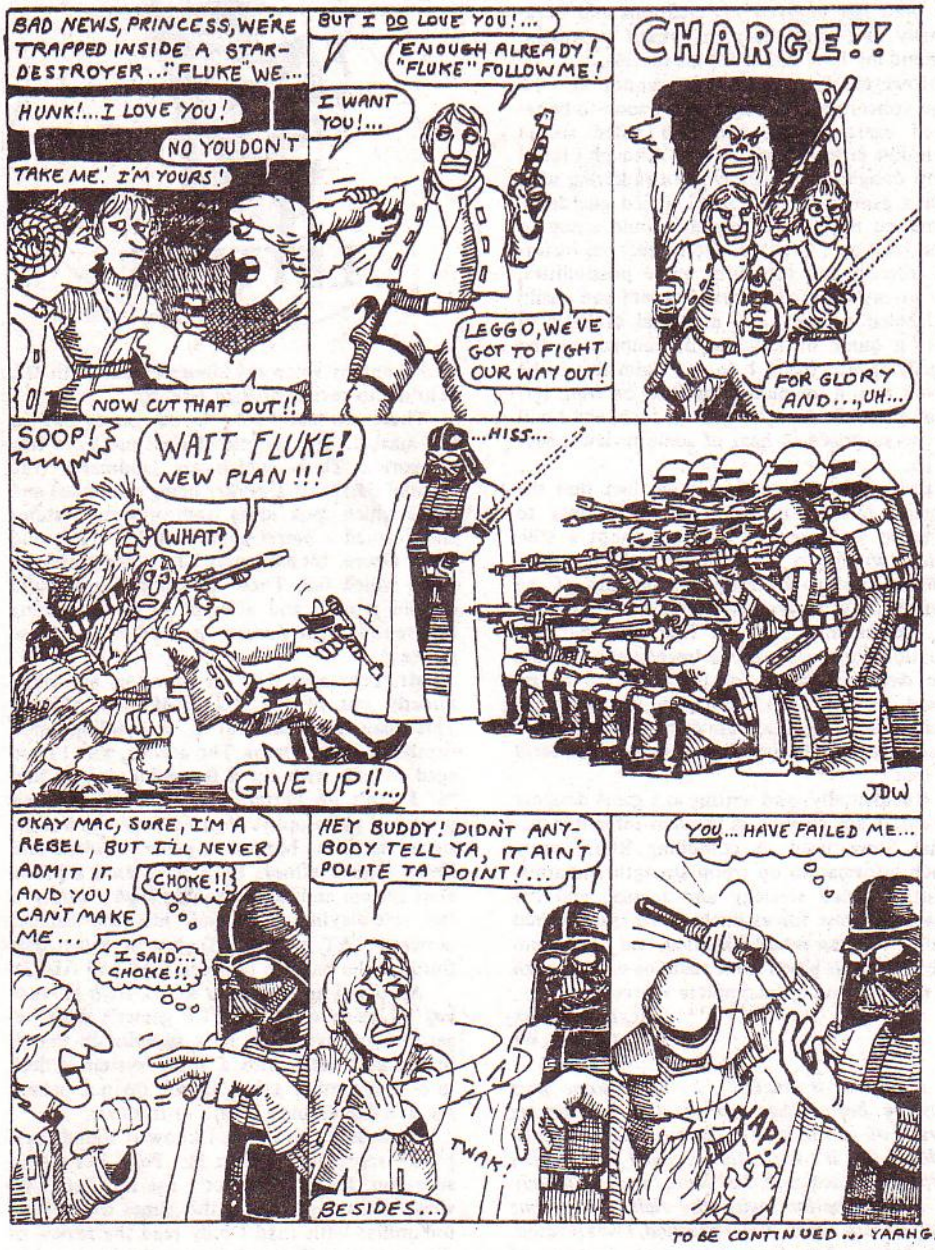
In closing I would like to say, keep up the fantastic job; in the Omaha-area TSG is near the top in magazine sales. I feel that you have a lot of potential as a professional publication.

Jerry Epperson
Omaha, NE

Metagaming recently went to the small box format for its micros. The small boxes take up more space, fall apart easily, and get crushed open so that the small pieces fall out. I travel a lot, and I always take a few micros with me. I am not satisfied. The company that pioneered the micros can do better than that. As for myself, being slow but not totally stupid, I've been putting mine in the commercial ziplock bags for some time now. It does little good to pay $3.95 for a game and then lose half of it to a preventable misfortune.

Michael Moore
Fort Bragg, NC

The Good Guys by JD


BAD NEWS, PRINCESS, WE'RE TRAPPED INSIDE A STAR-DESTROYER..." FLUKE" WE...
HUNK!... I LOVE YOU!
NO YOU DON'T
TAKE ME! I'M YOURS!
NOW CUT THAT OUT!!
BUT I DO LOVE YOU!...
ENOUGH ALREADY! "FLUKE" FOLLOW ME!
I WANT YOU!...
LEGGO, WE'VE GOT TO FIGHT OUR WAY OUT!
CHARGE!!
FOR GLORY AND..., UH...
SOOP!
WAIT FLUKE! NEW PLAN!!!
WHAT?
...HISS...
GIVE UP!!...
JDW
OKAY MAC, SURE, I'M A REBEL, BUT I'LL NEVER ADMIT IT, AND YOU CAN'T MAKE ME...
CHOKE!!
I SAID... CHOKE!!
HEY BUDDY! DIDN'T ANY-BODY TELL YA, IT AIN'T POLITE TA POINT!...
TWAK!
BESIDES...
YOU... HAVE FAILED ME...
WAP!
TO BE CONTINUED... YAAHG!

CALENDAR

December 27-January 2, 1980-1: An AD&D marathon will be held by two Omaha, NE stores; other games will be played. Contact The Dragon's Lair, 8316 Blondo St., Omaha, NE 68134.

January 16-18, 1981: USACON 3. Gaming con for SF&F, RP, and boardgaming. University of South Alabama in Mobile, AS. Contact Leo Vaulin, 5865 Lisloy Dr., Mobile, AL 36608.

February 6-8, 1981: GENCON SOUTH '81. Gaming con. Contact Gencon South Convention Comittee, 5333 Santa Monica Blvd N, Jacksonville, FL 32207.

February 14-16, 1981: DUNDRACON VI. FRP gaming con, Oakland, CA. Contact @ 386 Alcatraz Ave., Oakland, CA 94618.

March 13-15, 1981: COASTCON. Royal D'Iberville. Contact Coastcon 81, P.O. Box 6025, Biloxi, MS 39532.

March 20-21, 1981: SIMCON III. Con for fantasy role-playing games. University of Rochester in Rochester, NY. Contact SimCon III, Box 5142, Rochester, NY 14627.

March 20-22, 1981: LUNACON '81. Films, art show, wargaming. Contact LunaCon '81, P.O. Box 204, Brooklyn, NY 11230.

April 9-12, 1981: COLLEGECON 2. F&SF con. Contact CollegeCon 2, c/o Larry Taylor, University of Houston, N-23 UC, Program Council, 4800 Calhoun, Houston, TX 77004.

May 22-25, 1981: GRIMCON III. F/SF gaming con, Oakland Hyatt House, 455 Hegenberger Road, Oakland, CA 94612. Contact P.O. Box 4153, Berkeley, CA 94704.

July 3-5, 1981: ORIGINS '81. To be held in the Dunfee Motel, San Mateo, CA. Contact Origins '81, P.O. Box 5833, San Jose, CA 95150.

July 24-26, 1981: ATLANTICON. New wargaming convention. Contact AtlantiCon, Inc., P.O. Box 15405, Baltimore, MD 21220.

August 21-24, 1981: GENCON XIII. FRPG & new gaming releases. Contact GenCon XIII, P.O. Box 756, Lake Geneva, WI 53147.

September 3-7, 1981: DENVENTION TWO. SF con. Contact Denvention Two, P.O. Box 11545, Denver, CO 80211 or (303) 433-9774.

CONVENTION ORGANIZERS – let us know about your con! Free publicity never hurts.

NEWS & PLUGS

Chester E. Hendrix is offering a complete PBM kit for his proposed PBM version of *Starship Troopers.* (See "PBM Rules for *Starship Troopers,*" TSG 33, page 18-19.) The kit contains 105 sheets which include 5 complete hex lists and 25 sheets each of the other forms (each sheet good for 3 turns). The kit is priced at $9 postpaid and includes two complete sets of rules and unmounted counters. Write him at 1054 Lewis Oak Road, Gridley, CA 95948.

SPI has appointed Christopher Wagner, the founding editor of *Strategy & Tactics*, to the post of chief executive officer.

Superior Simulations is taking over the PBM game *Galaxy II,* has published the second edition of the *Empyrean Challenge* rulebook, and will soon playtest a new game, *Gemini 621.*

Dimension Six, publisher of *The Compleat Fantasist,* and a line of FRP game aids designed for use in many FRPGs, has announced that it is expanding operations with the addition of five board members. Upcoming releases from Dimension Six include *OrcQuest, The Nine Doctrines of Darkness II,* and *The Town of Jourdan.*

Admirers of artist Mitch O'Connell's work in the pages of TSG might want to take a look at *Lollapaloosa,* a comics/graphic art-oriented magazine. Contact Mitch O'Connell, 5453 N. Lakewood, Chicago, IL 60640.

Avalon Hill is rewriting the rules for *Alpha Omega* and *Magic Realm.*

De Jager and Co. has suspended *The Assassin's Quest* for the duration of the Canadian postal strike.

Microsoft has introduced *Olympic Decathlon,* a computer game available on cassette and diskette for the TRS-80 Model I. The game includes the 100-meter dash, long jump, pole vault, discus throw, shot put, 400-meter dash, 110-meter hurdles, 1500-meter run, high jump, and javelin throw. Suggested retail price is $24.95.

Mazeltough Press is about to publish the third issue of *Guardian.* This issue will contain "stories in the Star Trek, Star Wars, and UNCLE universes." Contact Cynthia Levine, 1805 Highway 101N, No. 101, Plymouth, MN 55447.

STEVE JACKSON GAMES

Yes, it had to happen. Steve Jackson – the designer of OGRE, G.E.V., and THE FANTASY TRIP – is now in business on his own. An independent publisher. Designing the kind of games you want to play – and producing them with the quality you'd expect from far more expensive packages. Full-color maps and covers . . . illustrated rules . . . multi-color counters . . . at $3 per game! Read on . . .

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- ☐ a pygmy with a backfiring blowgun
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- ☐ All equally dangerous
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Answer: None of the above. It may be YOU or it may be someone you know. What do you look for? A gamer who is looking for some game but can't find it. A gamer who has read about a game but no one is stocking it. A gamer who is desperately trying to find some 20 sided dice.

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(I think the interminibilator just did! . . .

YOIP!)

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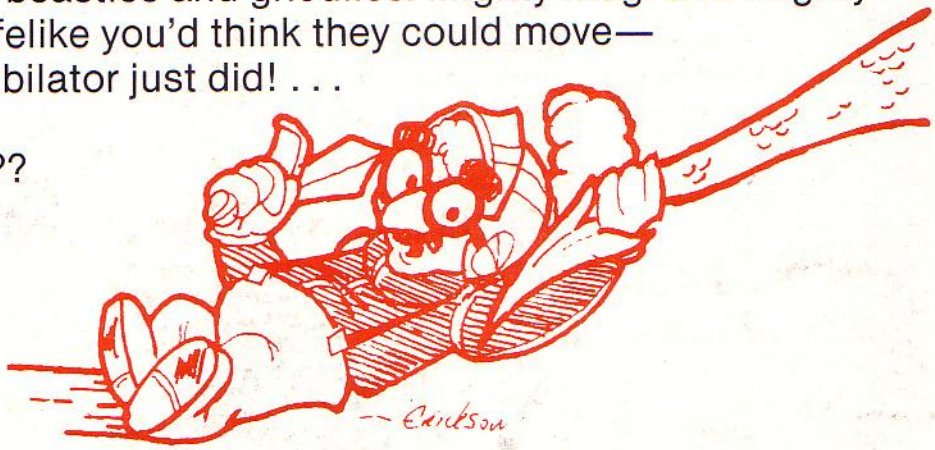
(. . . throw down)

I think I'm going to ladder. QUICK.

(Tell Butch to get a



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